



# ***STIC Search Report***

## ***Biotech-Chem Library***

**STIC Database Tracking Number: 181500**

**TO: David Lukton**  
**Location: rem/3B75/3C18**  
**Art Unit: 1654**  
**March 14, 2006**

**Case Serial Number: 10/528771**

**From: P. Sheppard**  
**Location: Remsen Building**  
**Phone: (571) 272-2529**

**sheppard@uspto.gov**

### **Search Notes**

SEARCH REQUEST FORM  
(STIC)

3/7/06

Requestor's Name: David Lukton      Examiner number: 71263      Date:

10-528771

Art Unit: 1654      Phone number: 571-272-0952      Serial Number:

Mail Box: 3-C-18      Examiner Rm: 3-B-75      Results format: paper

\*\*\*\*\*

Title: COMPOUND BINDING TO LEUKOCYTES AND MEDICINAL COMPOSITION  
CONTAINING THE COMPOUND

Applicants: SEKI, IKUYA; KAWAGUCHI, TAKAYOSHI;  
SHIRAKAMI, YOSHIFUMI

Earliest Priority Date: 9/27/02

\*\*\*\*\*

Applicants are claiming the compounds on the attached sheet.

R<sub>2</sub> = alkyl or -CH<sub>2</sub>-S-CH<sub>3</sub>;

n = any integer (including zero);

R<sub>3</sub> = anything;

R<sub>4</sub> = -OH or -NH<sub>2</sub>;

R<sub>5</sub> = any carbon-containing moiety.

R<sub>1</sub> = any carbon-containing moiety, but amino acids are excluded (for example,  
acetyl or formyl or benzoyl or methyl)

RECEIVED  
MAR - 7 2006  
STIC

\*\*\*\*\*  
STAFF USE ONLY

Type of Search

Vendors and cost where applicable

Searcher: \_\_\_\_\_

\_\_\_\_ NA Sequence (#)

\_\_\_\_ STN

\_\_\_\_ Dialog

Searcher Phone #: \_\_\_\_\_

\_\_\_\_ AA Sequence (#)

\_\_\_\_ Questel/Orbit

\_\_\_\_ Lexis/Nexis

Searcher Location: \_\_\_\_\_

\_\_\_\_ Structure (#)

\_\_\_\_ Westlaw

\_\_\_\_ WWW/Internet

Date Searcher Picked Up: \_\_\_\_\_

\_\_\_\_ Bibliographic

\_\_\_\_ In-house sequence systems

Date Completed: \_\_\_\_\_

\_\_\_\_ Litigation

\_\_\_\_ Commercial

\_\_\_\_ Oligomer

\_\_\_\_ Score/Length

\_\_\_\_ Interference

\_\_\_\_ SPDI

\_\_\_\_ Encode/Transl

\*Searcher Prep & Review Time: \_\_\_\_\_

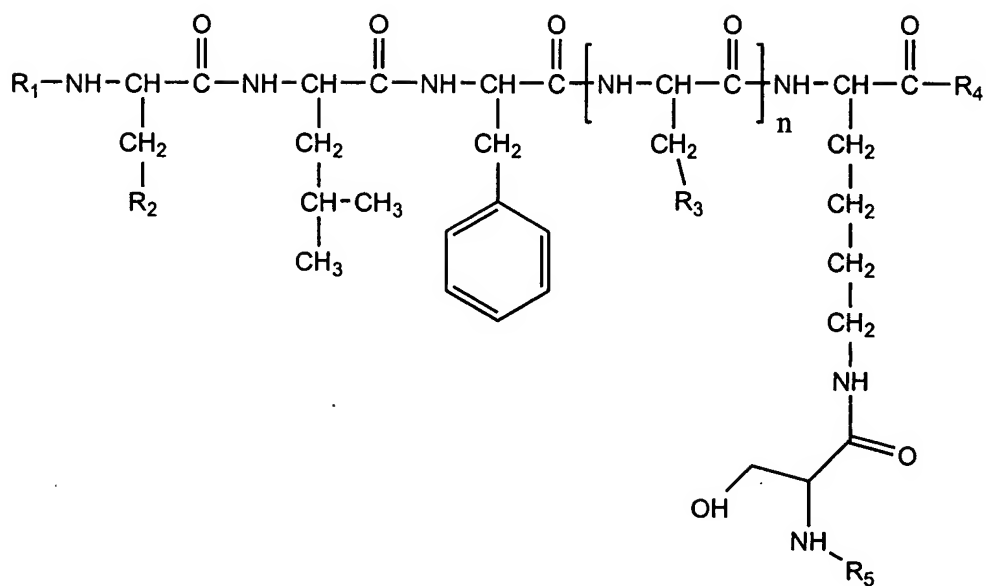
\_\_\_\_ Fulltext

\_\_\_\_ Other (specify)

Online Time: \_\_\_\_\_

\_\_\_\_ Other

10/528,771



Lukton 10\_528771- - History

=> d his ful

(FILE 'HOME' ENTERED AT 15:30:39 ON 14 MAR 2006)

FILE 'REGISTRY' ENTERED AT 15:30:52 ON 14 MAR 2006

L3 STR  
L5 6263 SEA SSS FUL L3  
L6 STR  
L7 5 SEA SUB=L5 SSS FUL L6  
L14 STR  
L16 92 SEA SSS FUL L14

FILE 'HCAPLUS' ENTERED AT 15:46:27 ON 14 MAR 2006

L17 1 SEA ABB=ON PLU=ON L7  
D STAT QUE L17  
D IBIB ABS HITSTR L17 1  
L18 6518 SEA ABB=ON PLU=ON L5  
L19 41 SEA ABB=ON PLU=ON L16  
L20 5 SEA ABB=ON PLU=ON (L18 AND L19) NOT L17  
D STAT QUE L20  
D IBIB ABS HITSTR L20 1-5  
L21 9 SEA ABB=ON PLU=ON "SEKI I"/AU OR "SEKI IKUYA"/AU  
L22 1 SEA ABB=ON PLU=ON (L21 AND (L18 OR L19)) NOT (L17 OR L20)  
D STAT QUE L22  
D IBIB ABS HITSTR L22 1  
L23 173 SEA ABB=ON PLU=ON "KAWAGUCHI T"/AU  
L24 18 SEA ABB=ON PLU=ON "KAWAGUCHI TAKAYOSHI"/AU  
L25 0 SEA ABB=ON PLU=ON ((L23 OR L24) AND (L18 OR L19)) NOT (L17  
OR L20 OR L22)  
D STAT QUE L25 NOS  
L26 15 SEA ABB=ON PLU=ON "SHIRAKAMI YOSHIFUMI"/AU  
L27 0 SEA ABB=ON PLU=ON (L26 AND (L18 OR L19)) NOT (L17 OR L20 OR  
L22)  
D STAT QUE L27 NOS  
L28 34 SEA ABB=ON PLU=ON (L21 OR L24 OR L26) NOT (L17 OR L20 OR  
L22)  
D STAT QUE L28 NOS  
D IBIB ABS L28 1-34

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 13 MAR 2006 HIGHEST RN 876655-59-3  
DICTIONARY FILE UPDATES: 13 MAR 2006 HIGHEST RN 876655-59-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

\*\*\*\*\*

\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*



Lukton 10\_528771- - History

\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\* \*  
\*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

FILE HCAPLUS

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FILE COVERS 1907 - 14 Mar 2006 VOL 144 ISS 12  
FILE LAST UPDATED: 13 Mar 2006 (20060313/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

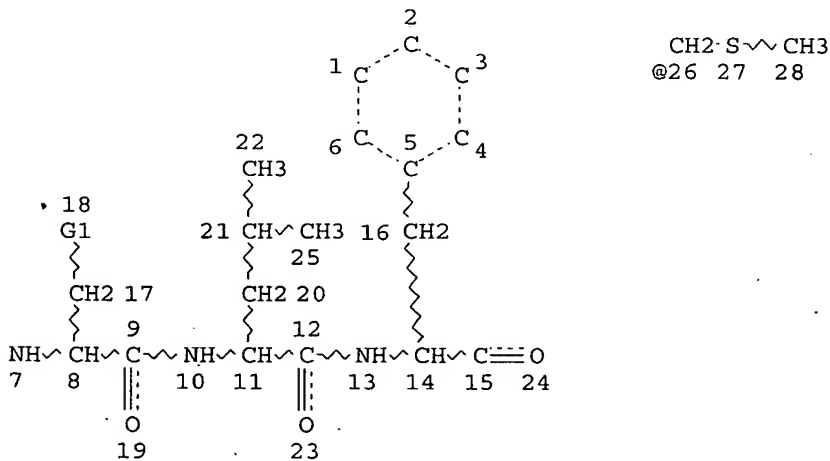
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Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> d stat que 117  
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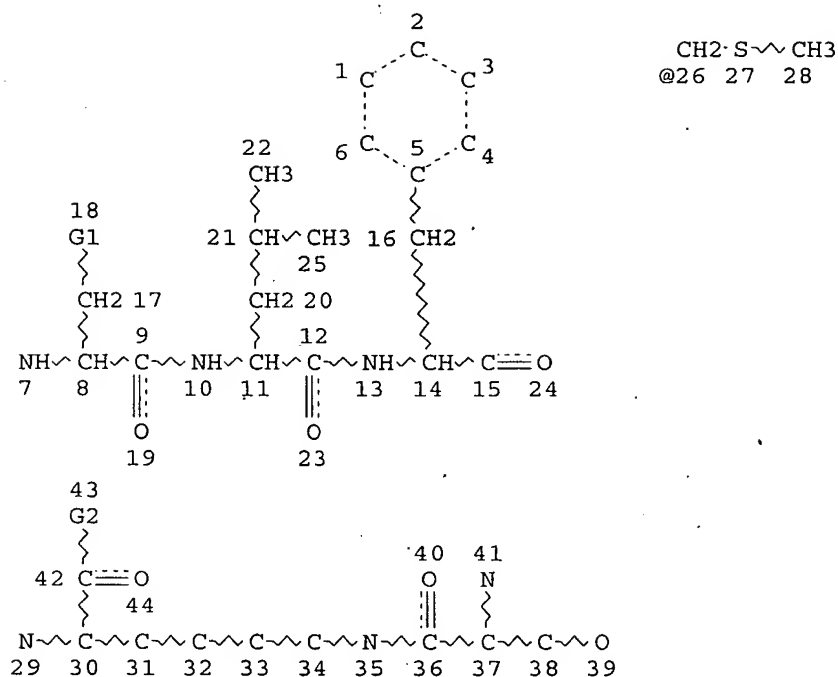


GRAPH ATTRIBUTES:  
RSPEC 5  
NUMBER OF NODES IS 28

Page 1

L6

STR



VAR G1=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/26

VAR G2=OH/NH2

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC 5

NUMBER OF NODES IS 44

STEREO ATTRIBUTES: NONE

L7 5 SEA FILE=REGISTRY SUB=L5 SSS FUL L6

L17 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L7

=&gt;

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=&gt; d ibib abs hitstr l17 1

L17 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1075668 HCAPLUS

DOCUMENT NUMBER: 143:367594

TITLE: Composition for medical use having improved  
 water-solubility of peptide and metal-labeling  
 efficiency and preparation for medical use comprising  
 metal-labeled peptide

INVENTOR(S): Kawaguchi, Takayoshi; Seki, Ikuya; Maemura, Marino

PATENT ASSIGNEE(S): Nihon Medi-Physics Co., Ltd., Japan

SOURCE: PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005092396	A1	20051006	WO 2005-JP5182	20050323
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.:

JP 2004-89620

A 20040325

OTHER SOURCE(S):

MARPAT 143:367594

AB By preliminarily dissolving a basic organic compound in an aqueous solvent in which

a peptide usable in metal-labeling is to be dissolved, the solubility of the peptide is improved and thus metal-labeling can be carried out without heating. A composition for medical use containing a peptide usable in metal-labeling and a basic organic compound acceptable as a pharmaceutical additive can be utilized as a preparation useful in image diagnosis, radiotherapy and so on. Thus, a peptide N-formyl-Nle-Leu-Phe-Nle-Tyr-Lys(NH<sub>2</sub>)-ε(-Ser-D-Arg-Asp-Cys-Asp-Asp) was prepared by Boc method, and dissolved in an arginine solution. The obtained peptide solution was used for labeling by using [Tc-99m] sodium pertechnetate to make an imaging agent.

IT 866103-17-5DP, technetium 99 complexes

RL: DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

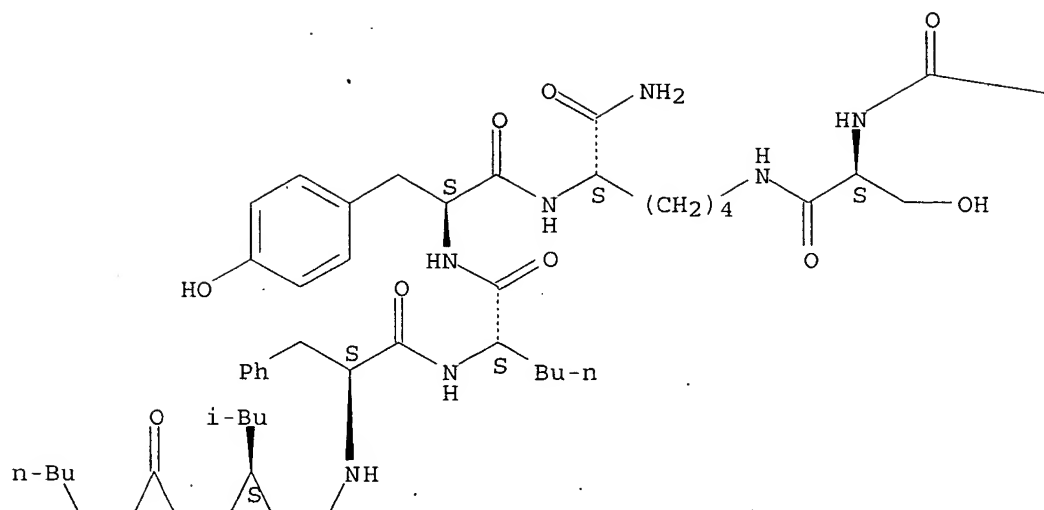
(composition for medical use having improved water-solubility of peptide and metal-labeling efficiency and preparation for medical use comprising metal-labeled peptide)

RN 866103-17-5 HCAPLUS

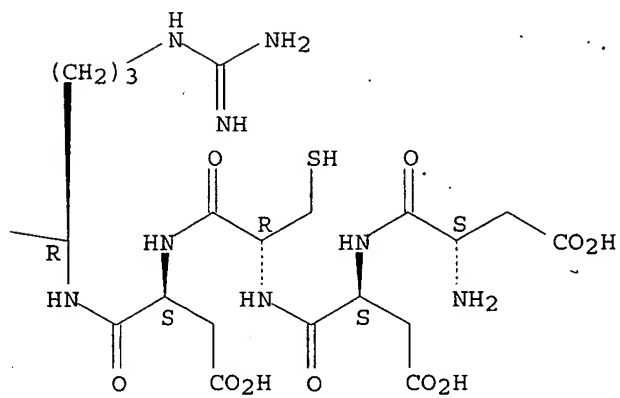
CN L-Lysinamide, N-formyl-L-norleucyl-L-leucyl-L-phenylalanyl-L-norleucyl-L-tyrosyl-N6-(L-α-aspartyl-L-α-aspartyl-L-cysteinyl-L-α-aspartyl-D-arginyl-L-seryl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

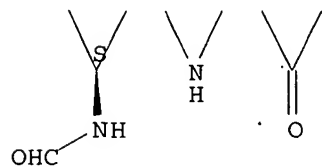
PAGE 1-A



PAGE 1-B



PAGE 2-A



IT 866103-14-2 866103-15-3 866103-16-4

RL: RCT (Reactant); RACT (Reactant or reagent)

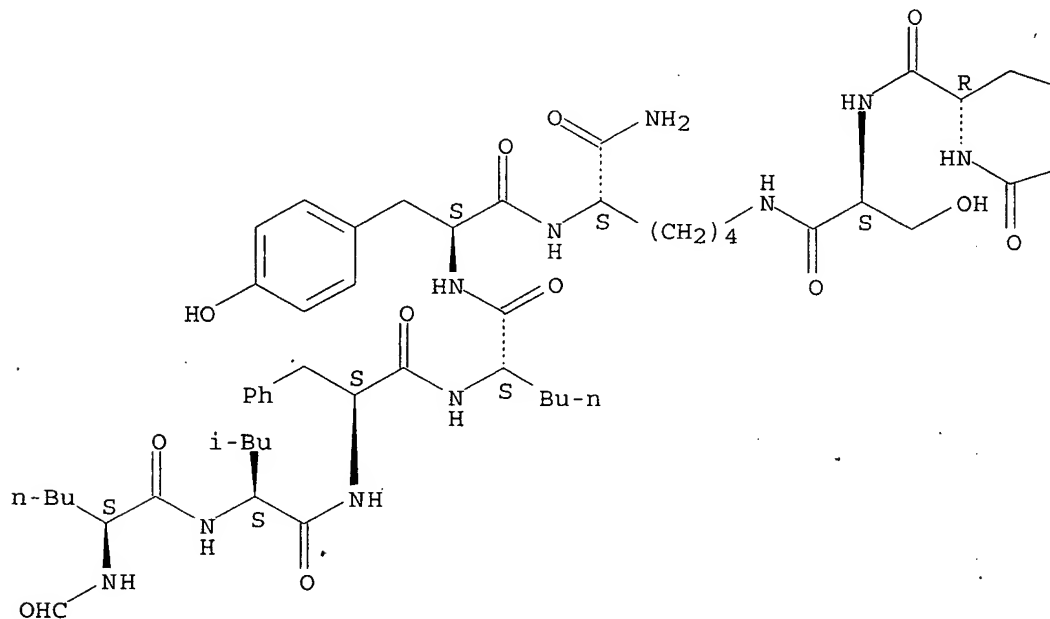
(composition for medical use having improved water-solubility of peptide and metal-labeling efficiency and preparation for medical use comprising metal-labeled peptide)

RN 866103-14-2 HCAPLUS

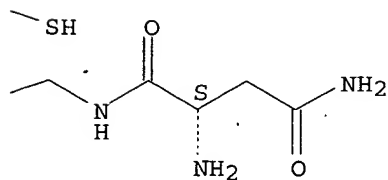
CN L-Lysinamide, N-formyl-L-norleucyl-L-leucyl-L-phenylalanyl-L-norleucyl-L-tyrosyl-N6-(L-asparaginylglycyl-L-cysteinyl-L-seryl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



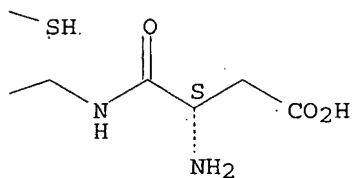
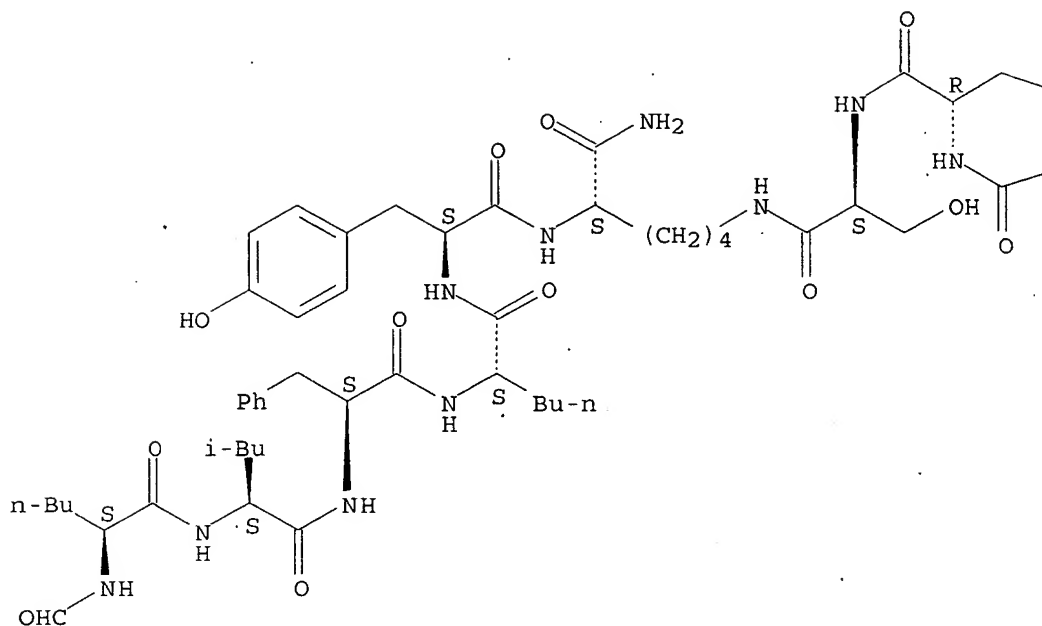
PAGE 1-B



RN 866103-15-3 HCAPLUS

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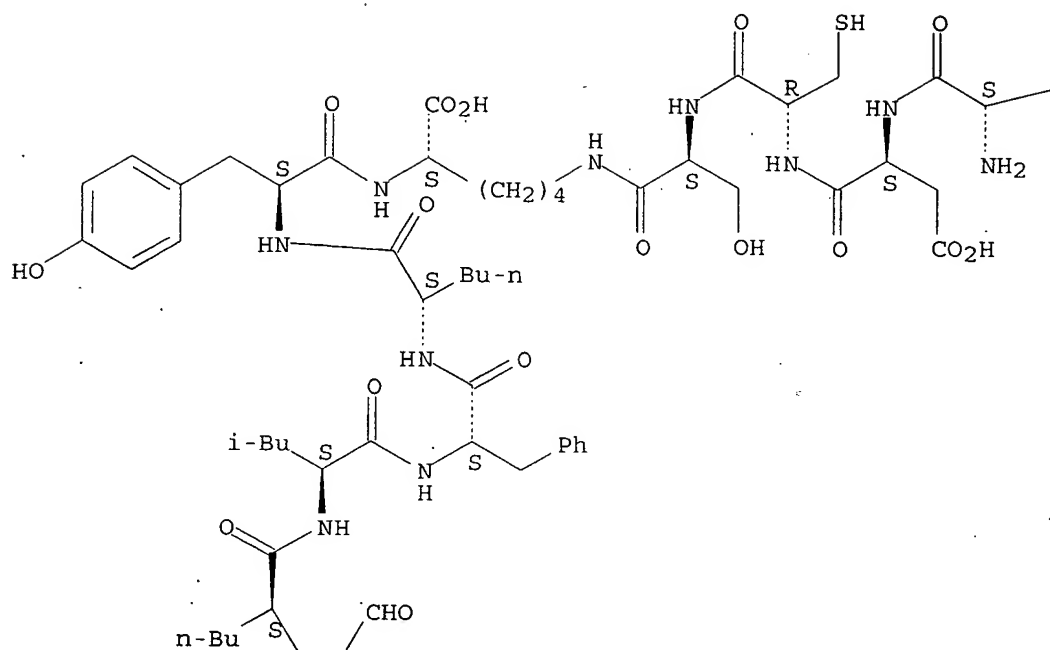
Absolute stereochemistry.



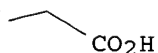
RN 866103-16-4 HCAPLUS

CN L-Lysine, N-formyl-L-norleucyl-L-leucyl-L-phenylalanyl-L-norleucyl-L-tyrosyl-N6-(L- $\alpha$ -aspartyl-L- $\alpha$ -aspartyl-L-cysteinyl-L-seryl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



PAGE 1-B



PAGE 2-A

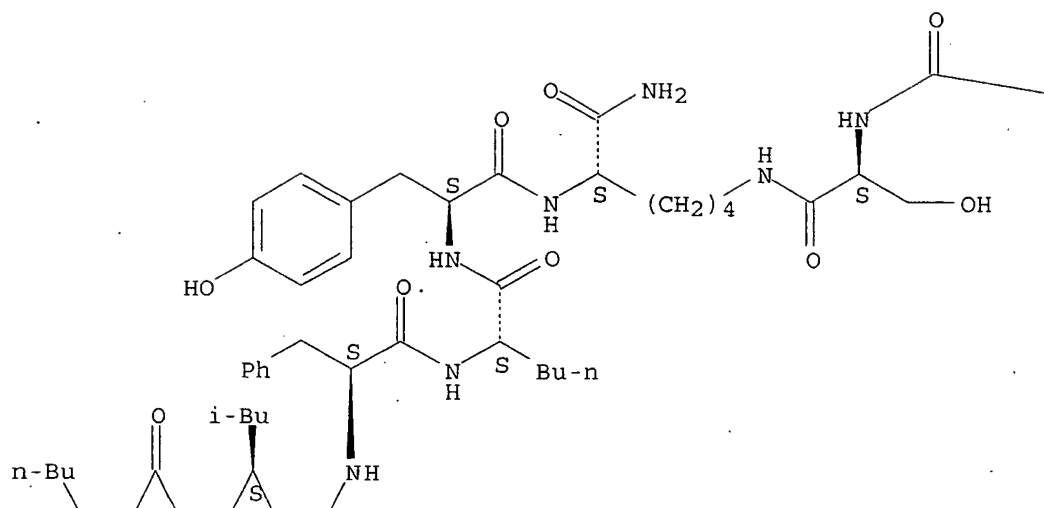


IT	866103-17-5P 866103-18-6DP, DTPA conjugates RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (composition for medical use having improved water-solubility of peptide and metal-labeling efficiency and preparation for medical use comprising metal-labeled peptide).
RN	866103-17-5 HCAPLUS
CN	L-lysynamide, N-formyl-L-norleucyl-L-leucyl-L-phenylalanyl-L-norleucyl-L- tyrosyl-N6-(L- $\alpha$ -aspartyl-L- $\alpha$ -aspartyl-L-cysteinyl-L- $\alpha$ - aspartyl-D-arginyl-L-seryl)- (9CI) (CA INDEX NAME)

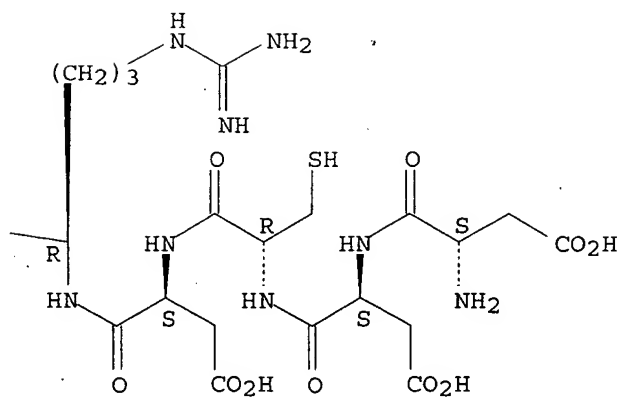
Absolute stereochemistry.



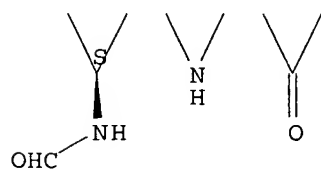
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PAGE 1-B



PAGE 2-A

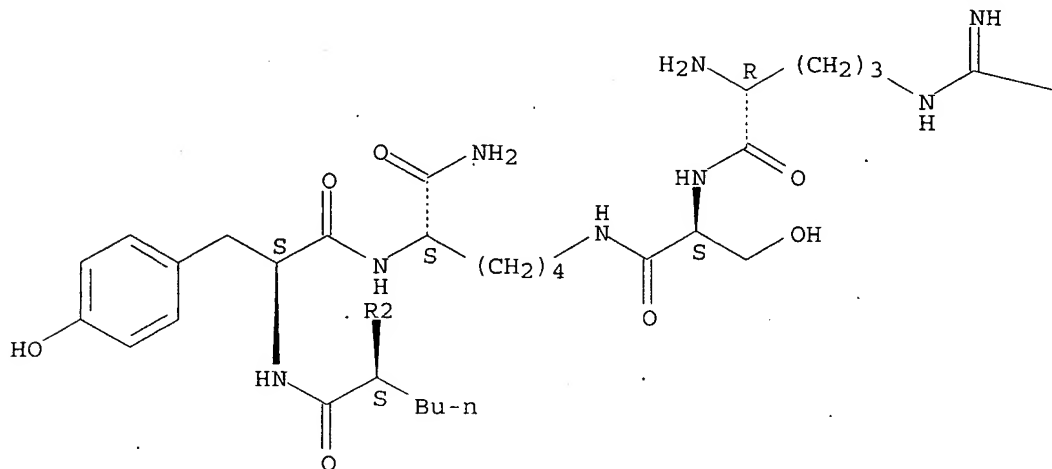


RN 866103-18-6 HCAPLUS

CN L-Lysinamide, N-formyl-L-norleucyl-L-leucyl-L-phenylalanyl-L-norleucyl-L-tyrosyl-N6-(D-arginyl-L-seryl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

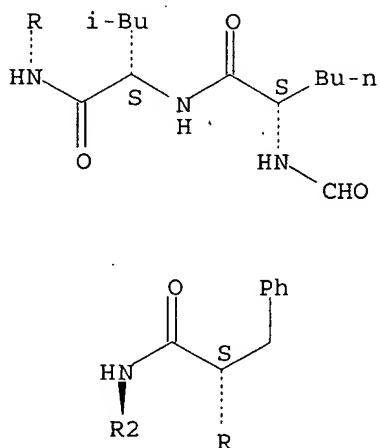
PAGE 1-A



PAGE 1-B

NH<sub>2</sub>

PAGE 2-A

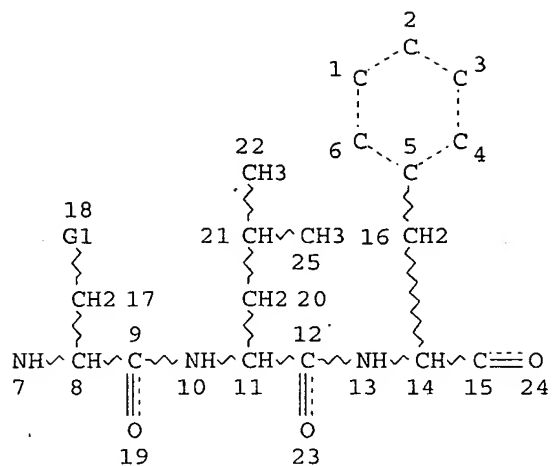


REFERENCE COUNT:

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THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L3 STR



CH2-S~CH3  
@26 27 28

VAR G1=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/26

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DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

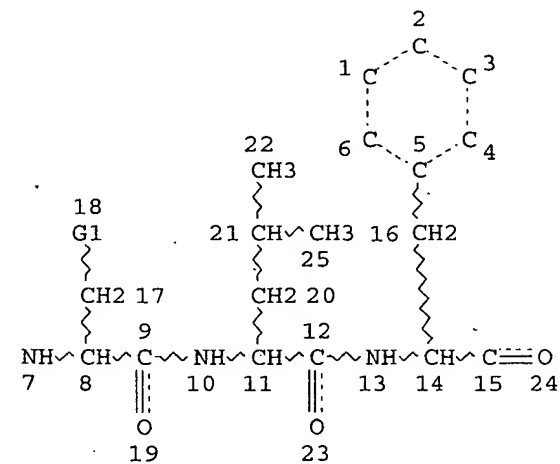
RSPEC 5

NUMBER OF NODES IS 28

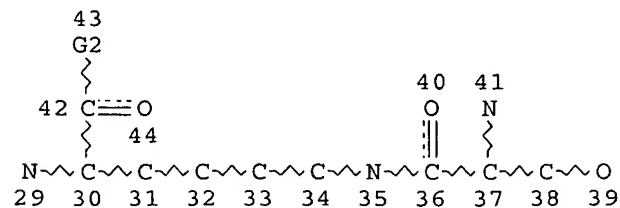
STEREO ATTRIBUTES: NONE

L5 6263 SEA FILE=REGISTRY SSS FUL L3

L6 STR



CH2-S~CH3  
@26 27 28

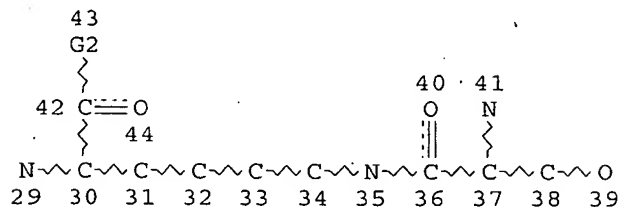


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VAR G2=OH/NH2  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RSPEC 5  
 NUMBER OF NODES IS 44

STEREO ATTRIBUTES: NONE  
 L7 5 SEA FILE=REGISTRY SUB=L5 SSS FUL L6  
 L14 STR



VAR G2=OH/NH2  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE  
 L16 92 SEA FILE=REGISTRY SSS FUL L14  
 L17 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L7  
 L18 6518 SEA FILE=HCAPLUS ABB=ON PLU=ON L5  
 L19 41 SEA FILE=HCAPLUS ABB=ON PLU=ON L16  
 L20 5 SEA FILE=HCAPLUS ABB=ON PLU=ON (L18 AND L19) NOT L17

=>  
 =>

=> d ibib abs hitstr l20 1-5

L20 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2004:100792 HCAPLUS  
 DOCUMENT NUMBER: 140:175157  
 TITLE: Insulin and IGF-1 receptor peptide agonists and  
 antagonists, and therapeutic use  
 INVENTOR(S): Pillutla, Renuka; Dedova, Olga; Blume, Arthur J.;  
 Goldstein, Neil I.; Brissette, Renee; Wang, Pinger;  
 Liu, Hao; Hsiao, Ku-chuan; Lennick, Michael; Fletcher,  
 Paul  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 242 pp., Cont.-in-part of U.S.  
 Ser. No. 962,756.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 5  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004023887	A1	20040205	US 2002-253493	20020924
US 2003195147	A1	20031016	US 2001-962756	20010924
US 6875741	B2	20050405		
PRIORITY APPLN. INFO.:			US 1998-146127	B2 19980902
			US 2000-538038	A2 20000329
			US 2001-962756	A2 20010924

OTHER SOURCE(S): MARPAT 140:175157

AB Peptide sequences capable of binding to insulin and/or insulin-like growth factor receptors with either agonist or antagonist activity and identified from various peptide libraries are disclosed. The invention also identifies at least two different binding sites which are present on insulin and insulin-like growth factor receptors, and which selectively bind the peptides of this invention. As agonists, certain of the peptides of this invention may be useful for development as therapeutics to supplement or replace endogenous peptide hormones. The antagonists may also be developed as therapeutics for e.g. treatment of diabetes. Dimers and fusion proteins are also disclosed as insulin and IGF-I receptor modulators.

IT 365229-31-8 365229-50-1 365261-25-2  
 506430-78-0D, C-C linked dimers 506430-80-4D, C-C linked  
 dimers 506430-81-5D, C-C linked dimers 506430-82-6D,  
 C-C linked dimers 506430-83-7D, C-C linked dimers  
 508197-02-2 508197-03-3

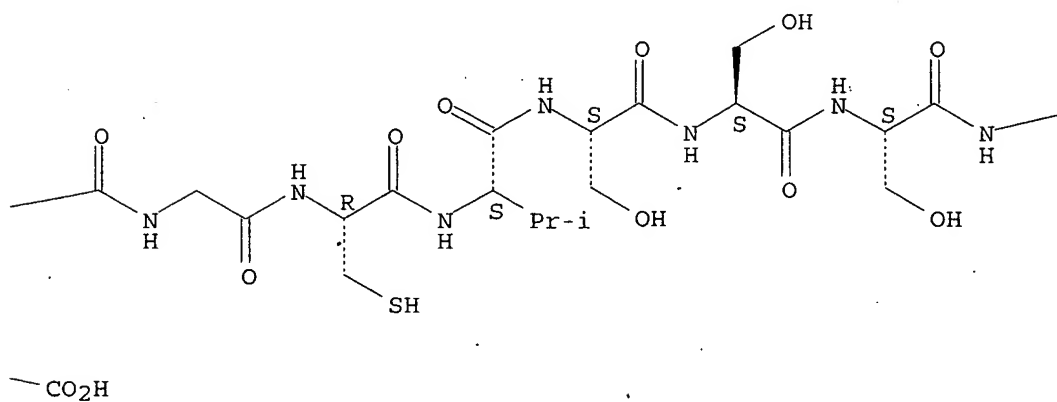
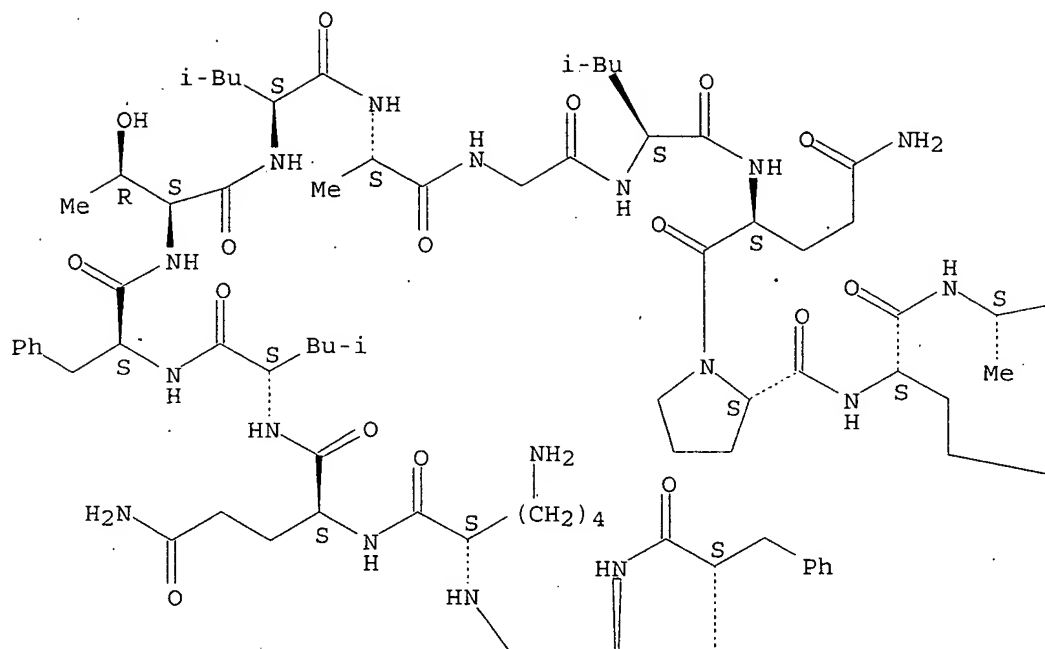
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL  
 (Biological study)

(amino acid sequence; peptides from various peptide libraries and their  
 dimers and fusion proteins as modulators of insulin and IGF-1 receptors  
 and therapeutic use)

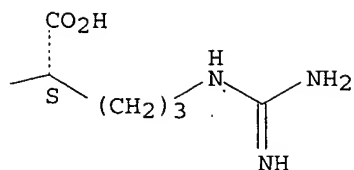
RN 365229-31-8 HCAPLUS

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 glutaminyl-L-leucyl-L-phenylalanyl-L-threonyl-L-leucyl-L-alanylglycyl-L-  
 leucyl-L-glutaminyl-L-prolyl-L- $\alpha$ -glutamyl-L-alanylglycyl-L-cysteinyl-  
 L-valyl-L-seryl-L-seryl-L-seryl- (9CI) (CA INDEX NAME)

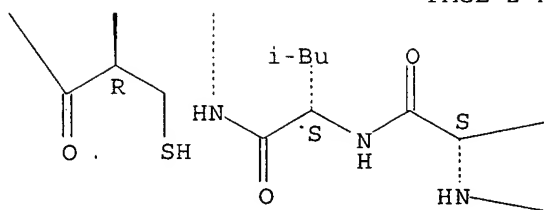
Absolute stereochemistry.



PAGE 1-C

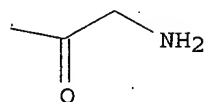


PAGE 2-A



PAGE 2-B

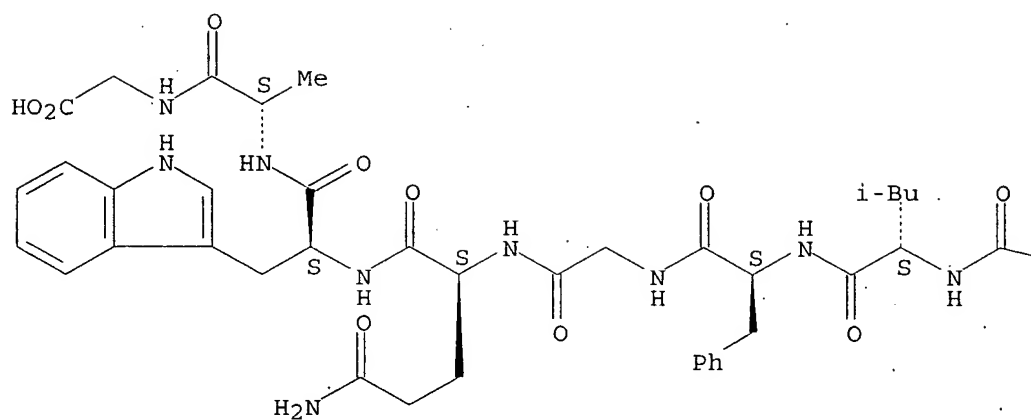
Bu-i



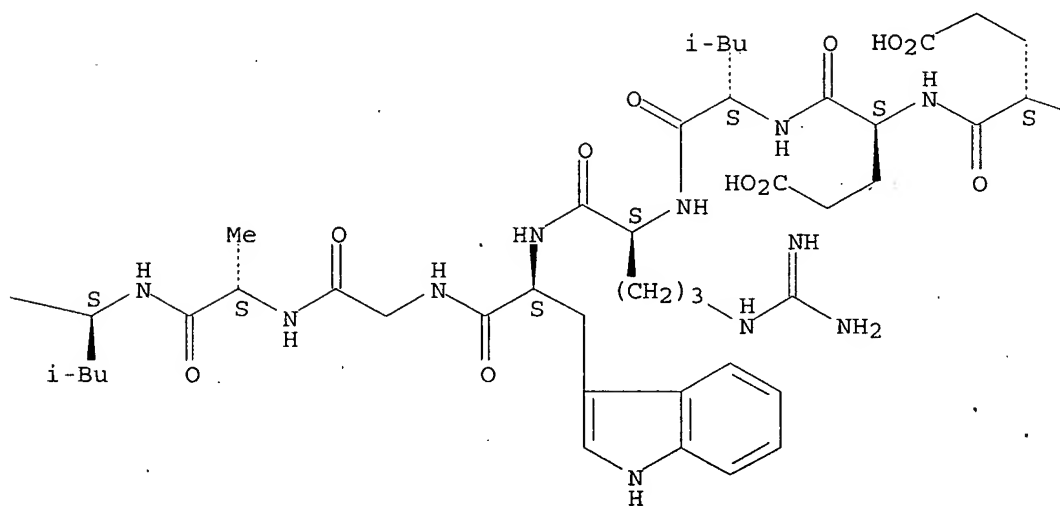
RN 365229-50-1 HCAPLUS  
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Absolute stereochemistry.

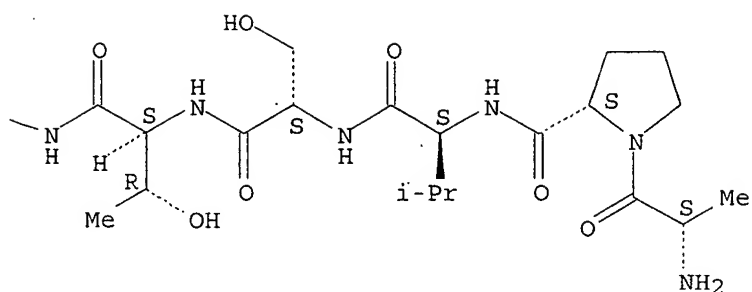
PAGE 1-A



PAGE 1-B

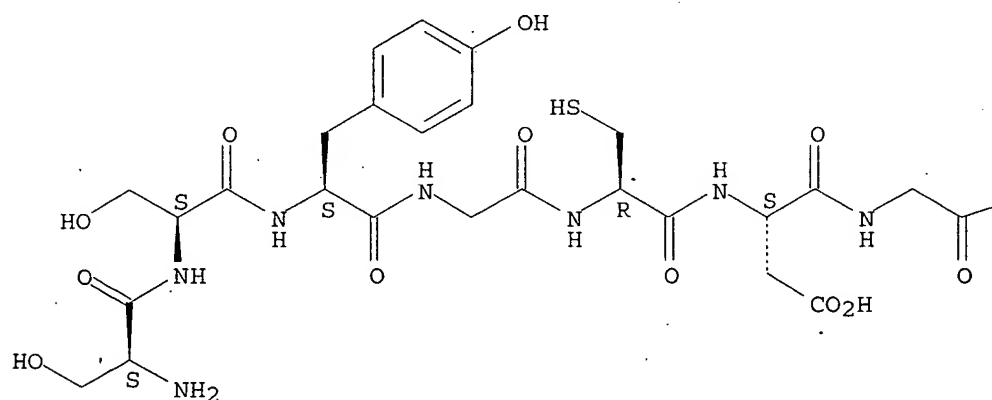




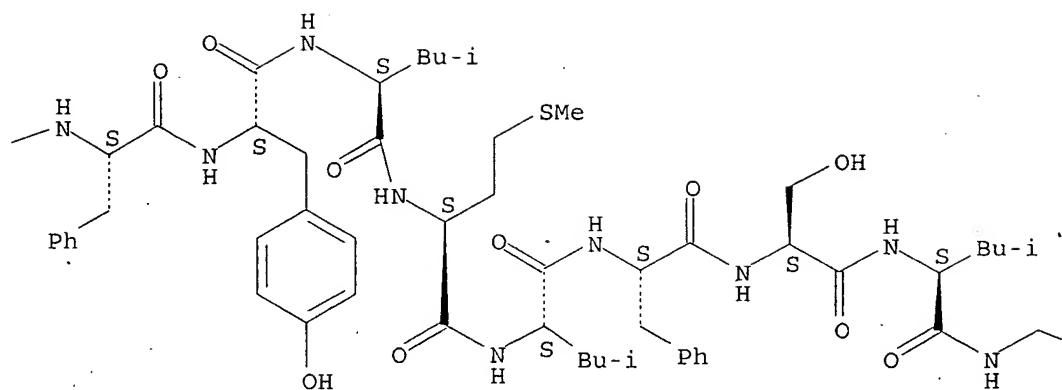


Absolute stereochemistry.

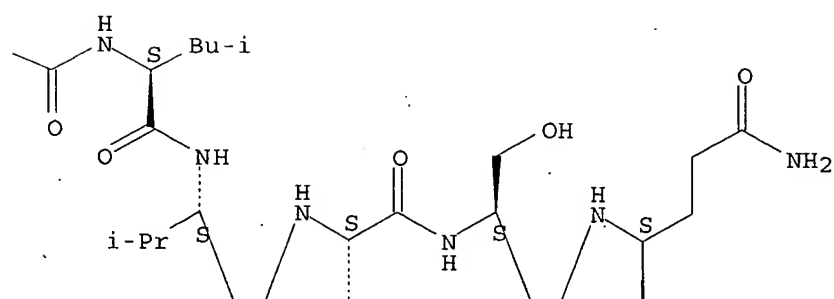
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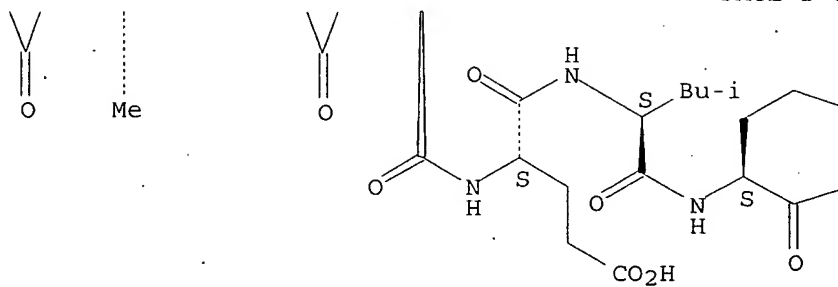
PAGE 1-B



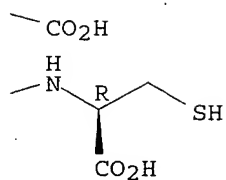
PAGE 1-C



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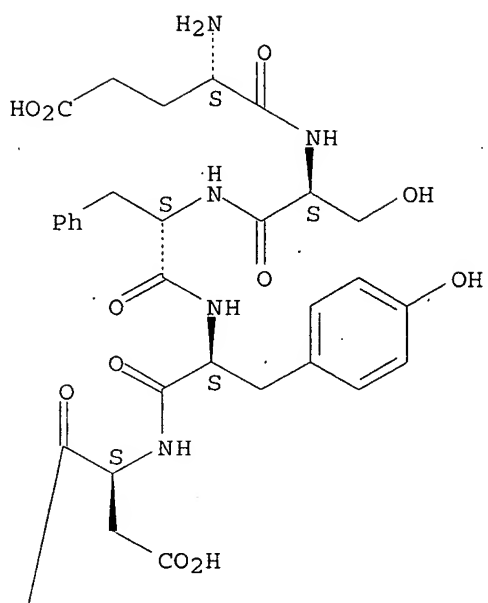


RN 506430-78-0 HCAPLUS

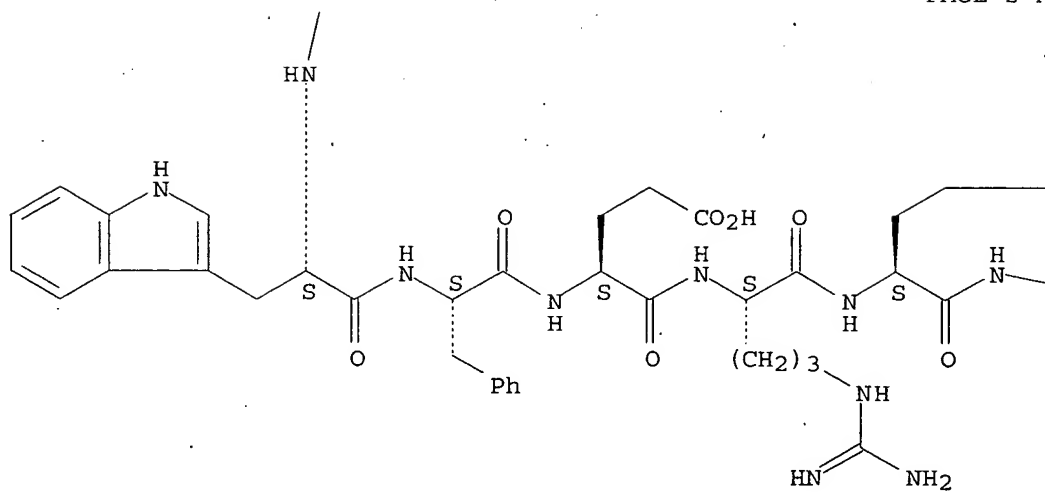
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Absolute stereochemistry.

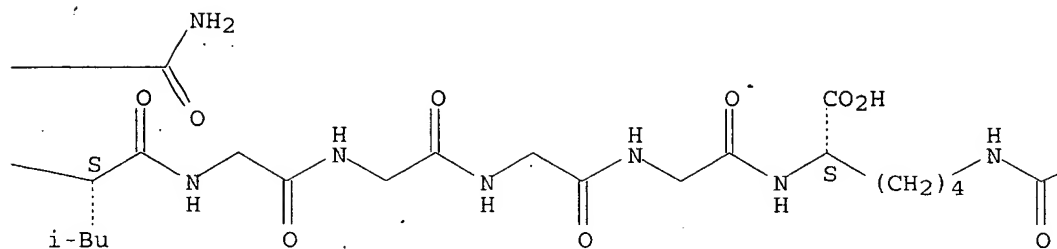
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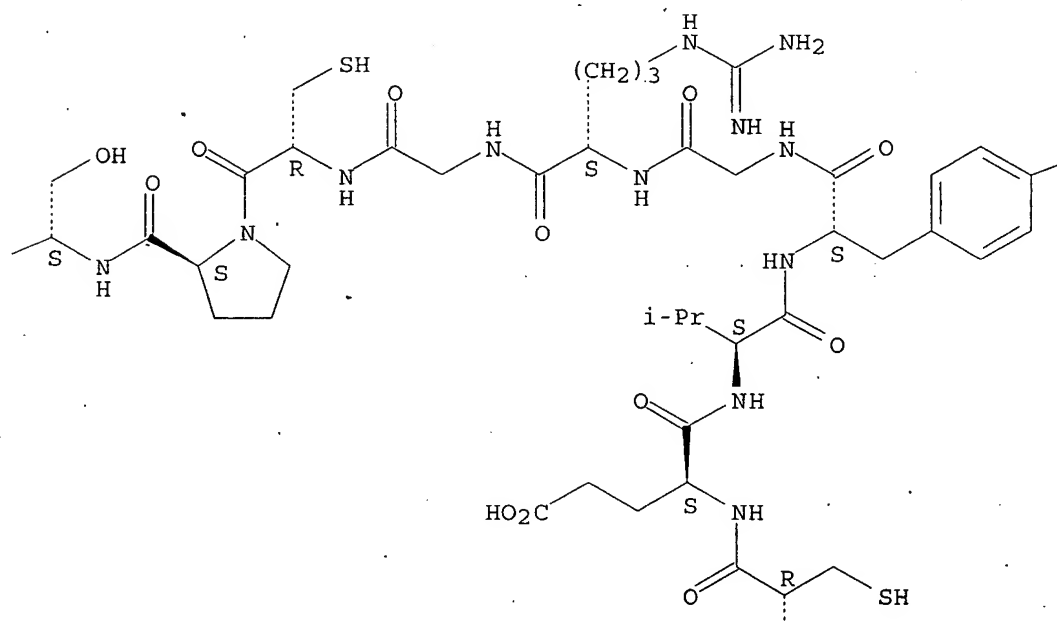
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PAGE 2-B



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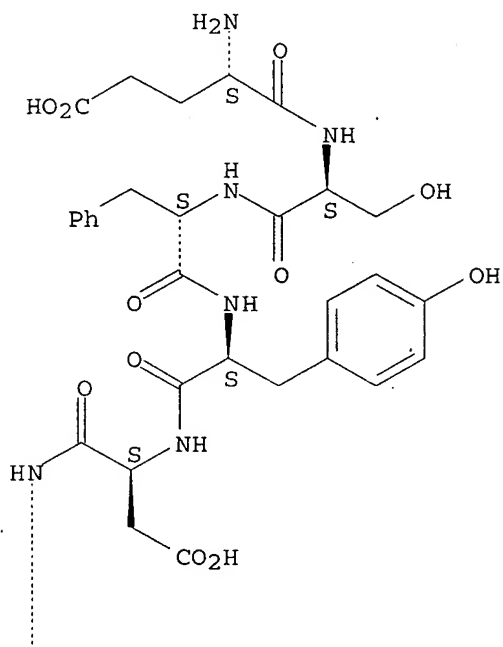
OH

⋮  
NH<sub>2</sub>

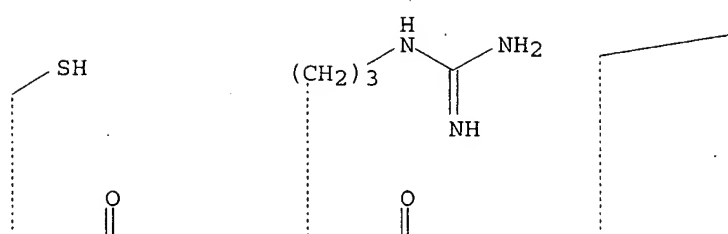
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 glutamyl-L-leucylglycylglycylglycylglycyl-N6-(L-alanyl-L-tryptophyl-L-  
 valyl-L-glutamyl-L-cysteinyl-L- $\alpha$ -glutamyl-L-valyl-L-tyrosylglycyl-  
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Absolute stereochemistry.

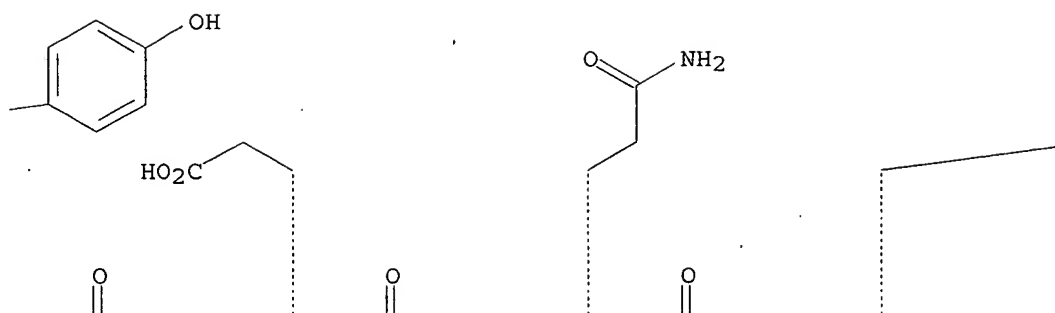
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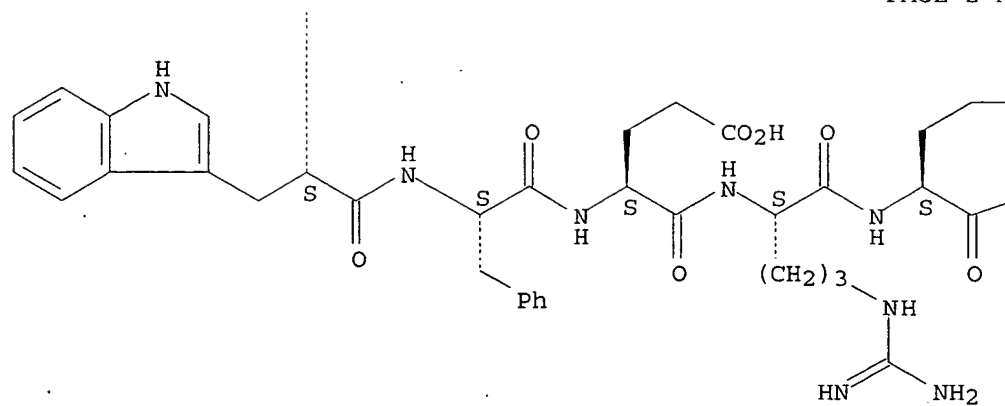
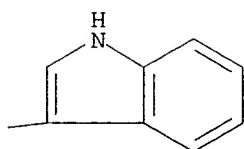


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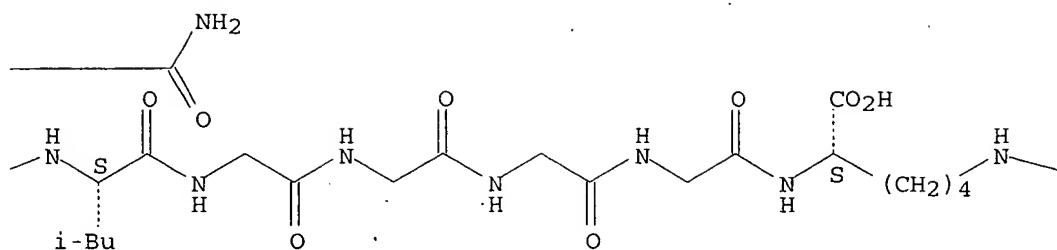
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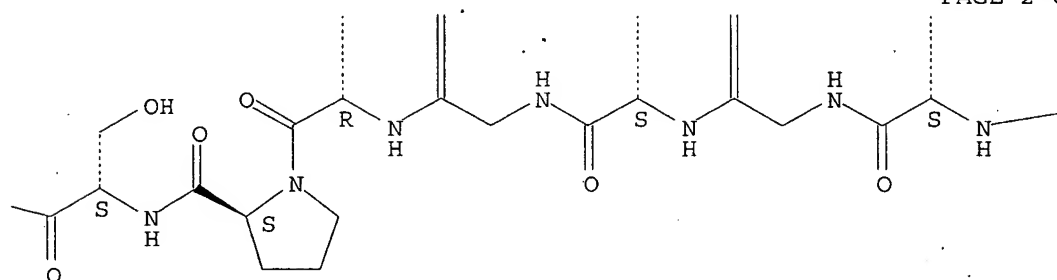




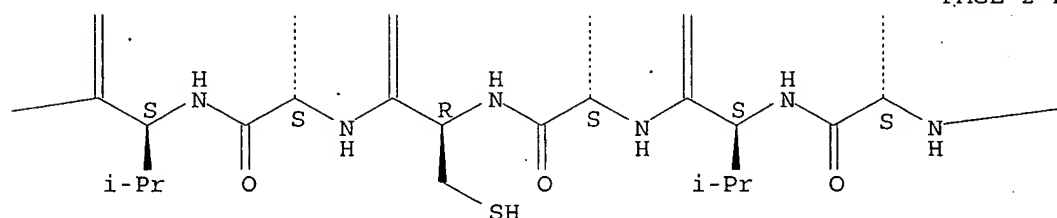
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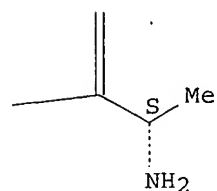
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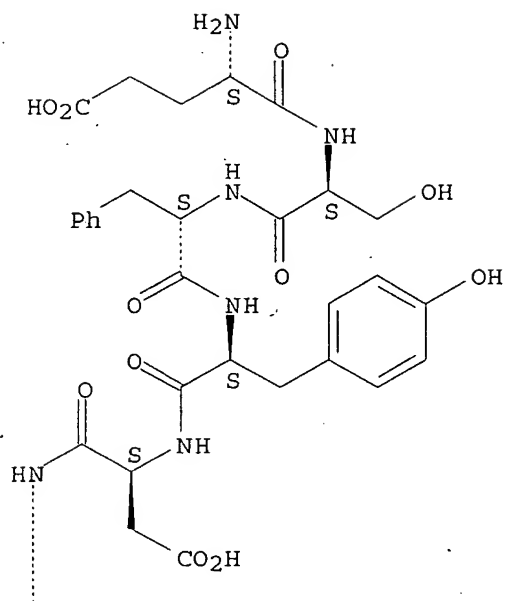
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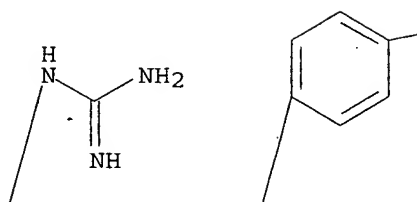
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Absolute stereochemistry.

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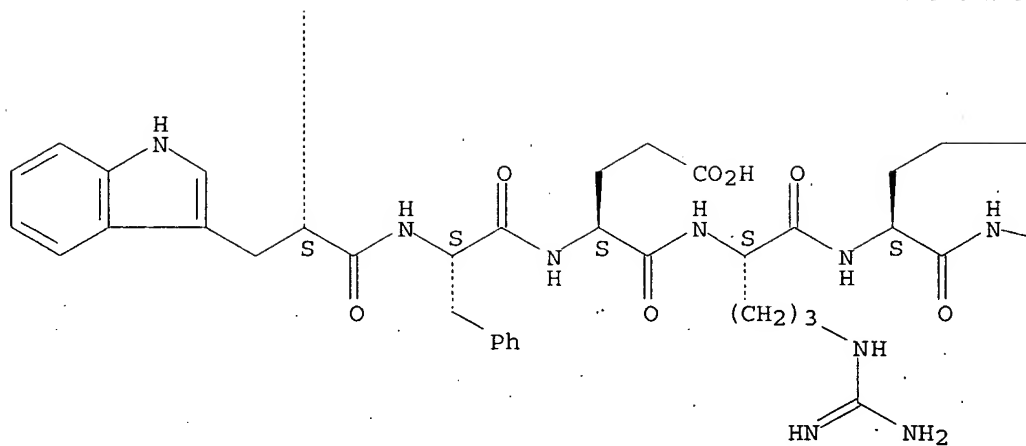
PAGE 1-C



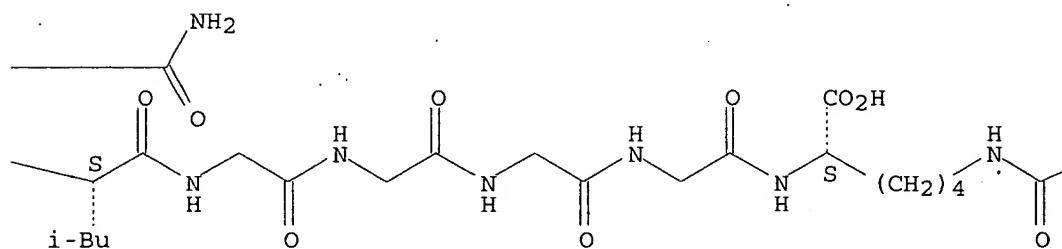
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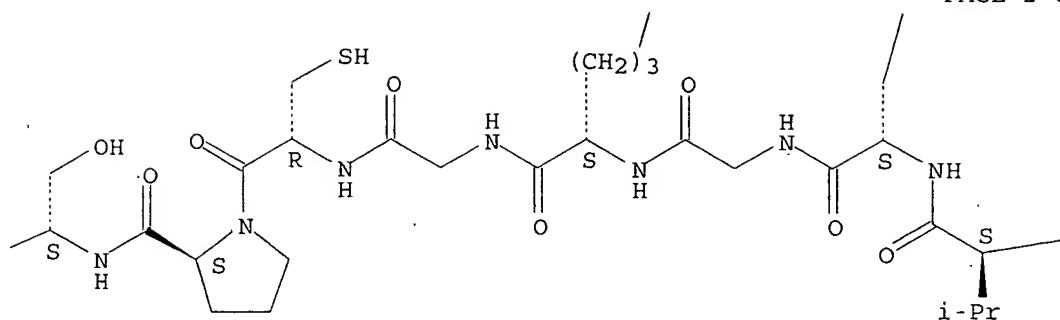
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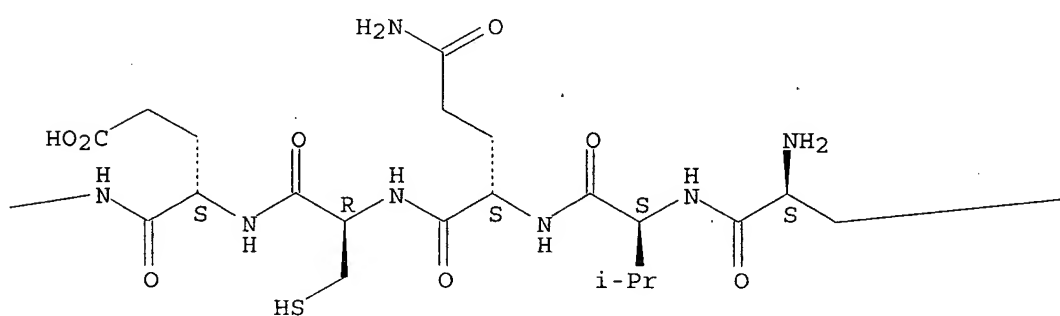
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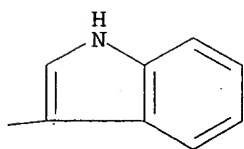
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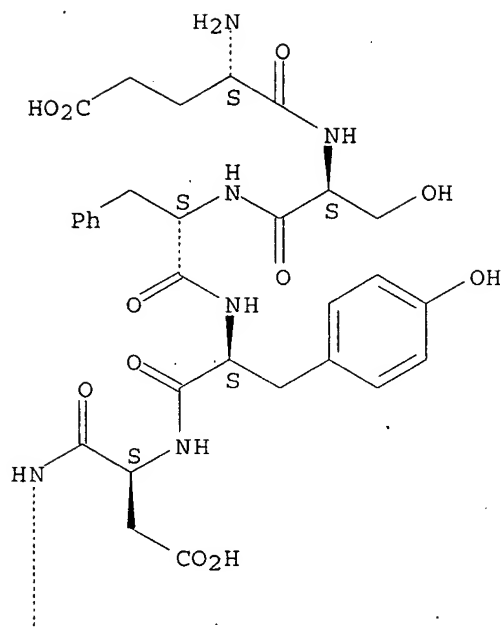


RN 506430-82-6 · HCAPLUS

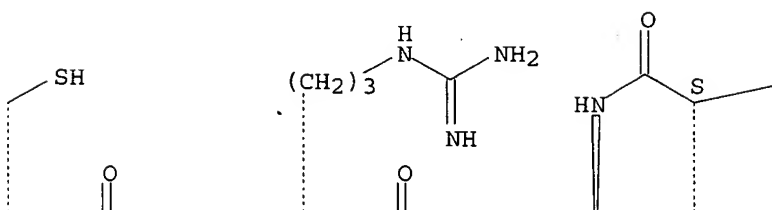
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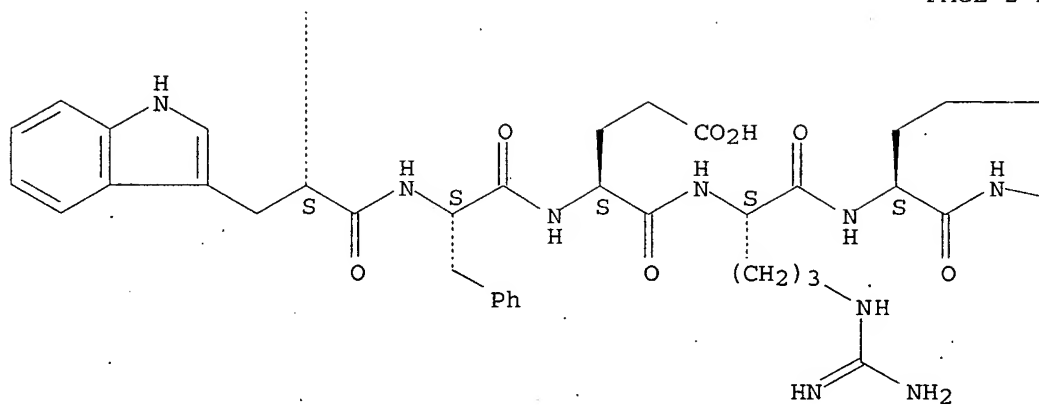
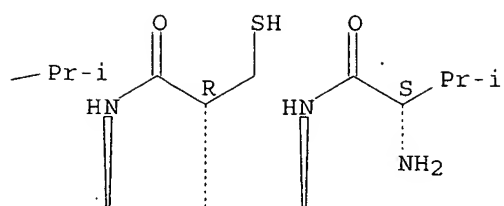
Absolute stereochemistry.

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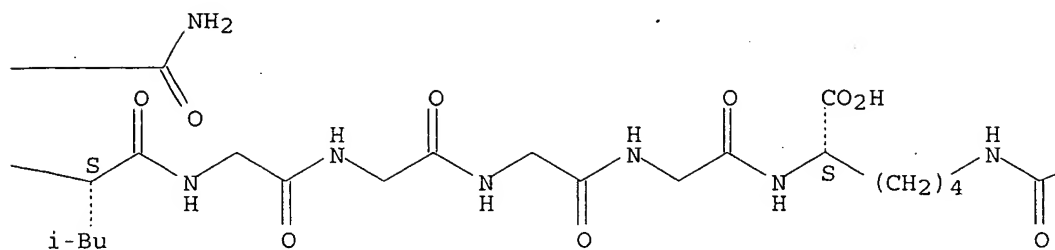


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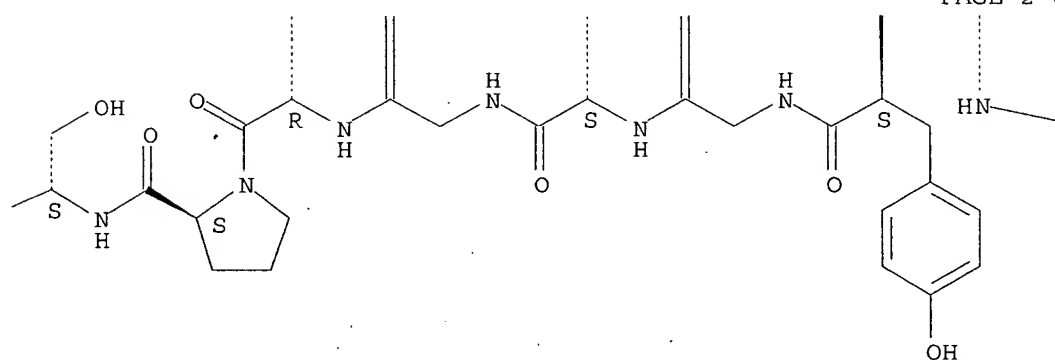




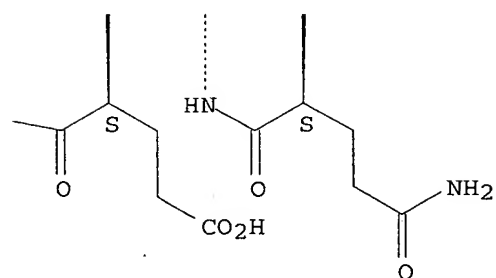
PAGE 2-B



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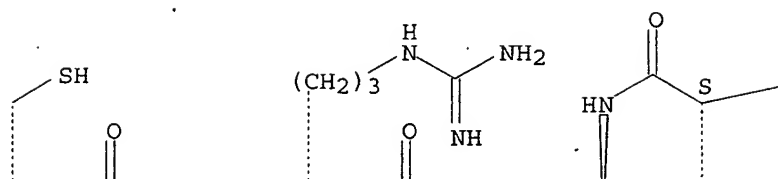
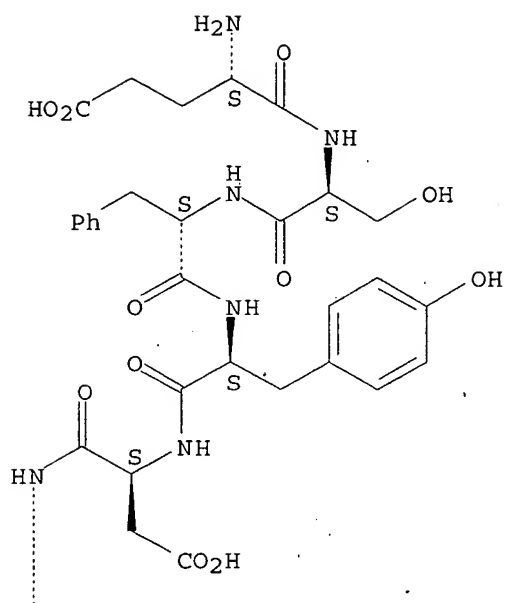
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RN 506430-83-7 HCAPLUS

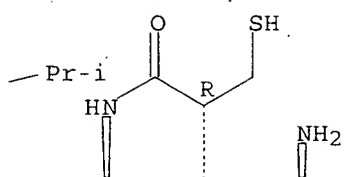
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Absolute stereochemistry.

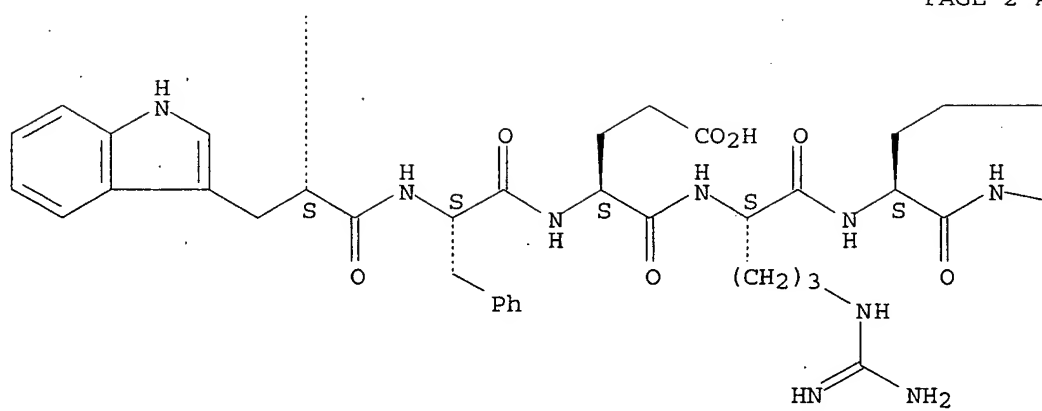




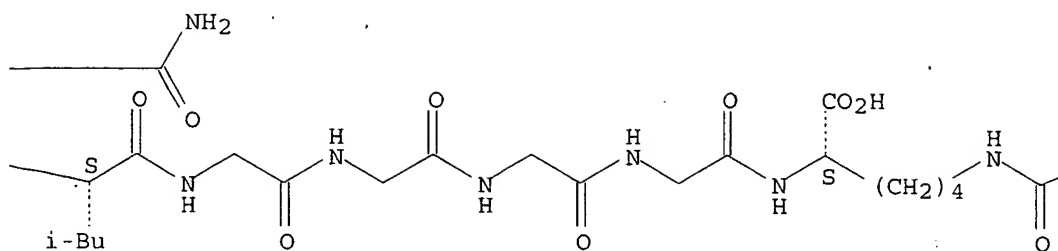
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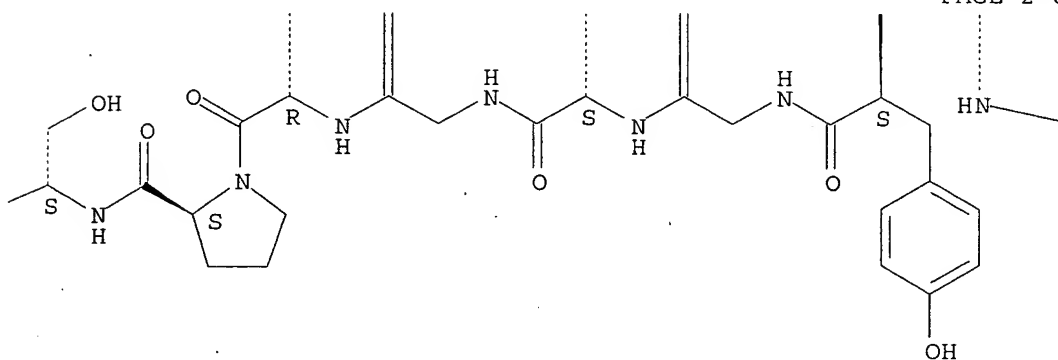
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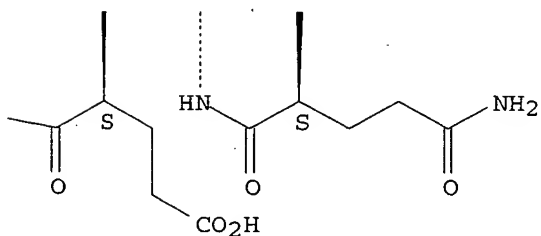
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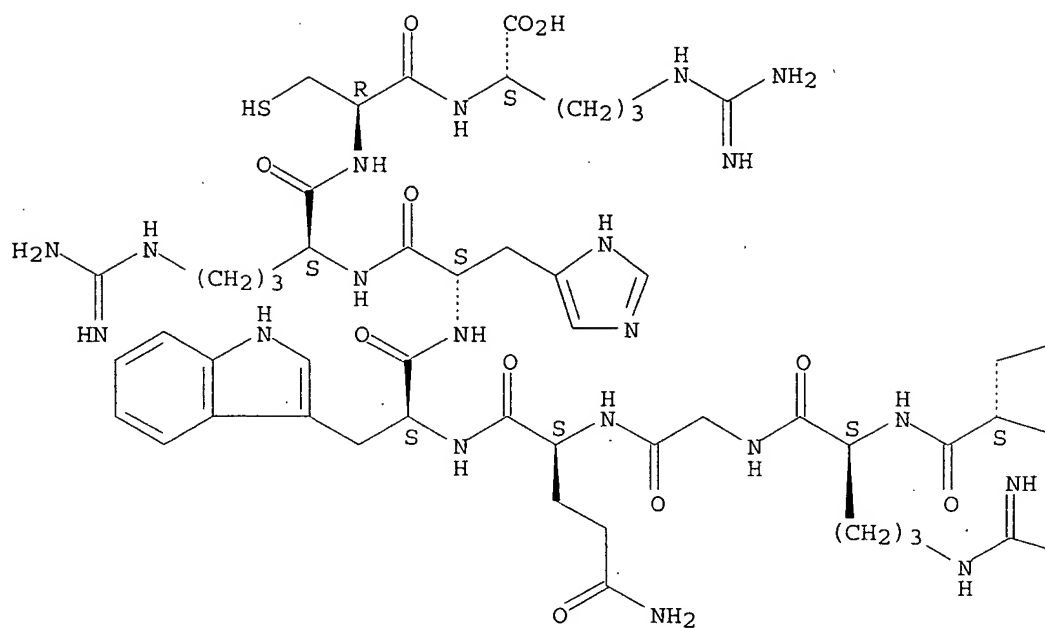
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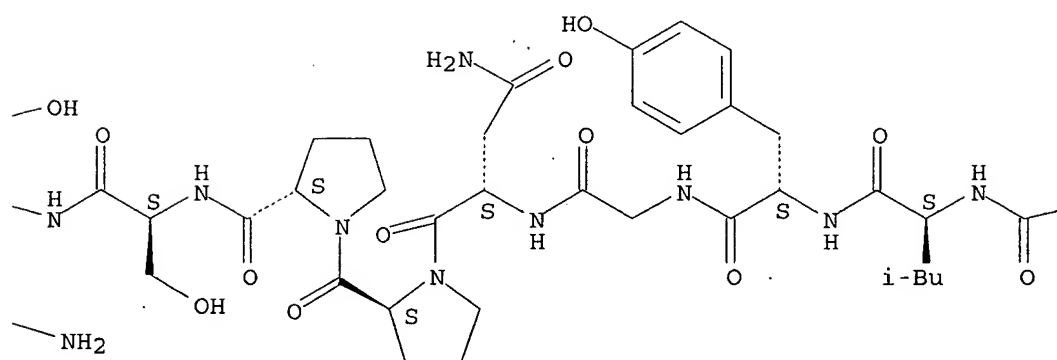
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Absolute stereochemistry.

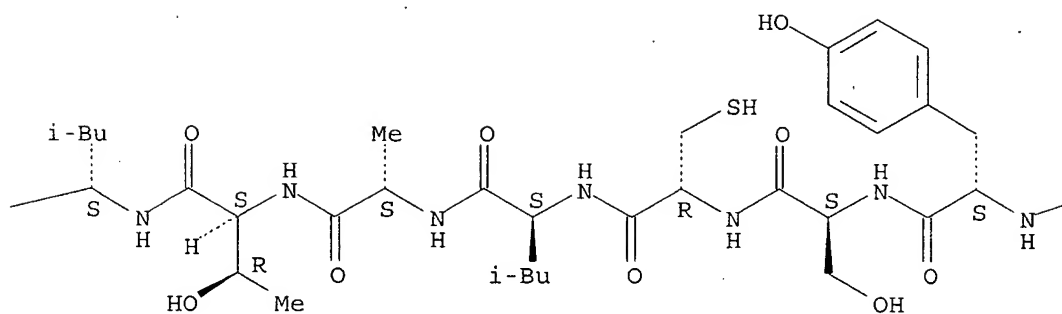
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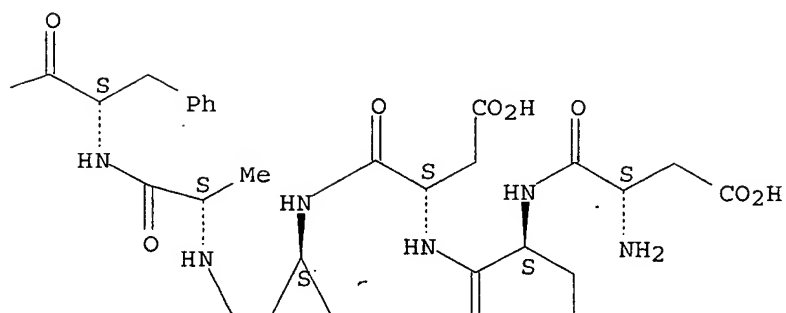
PAGE 1-B



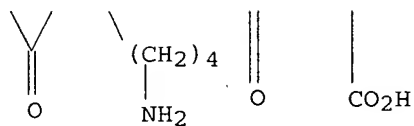
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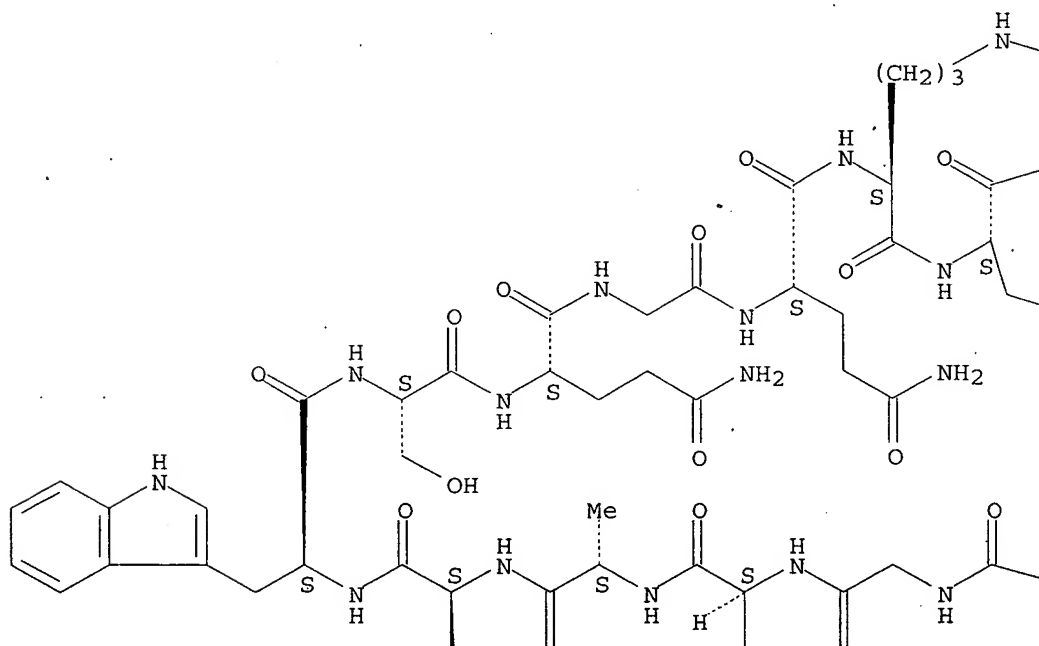


RN 508197-03-3 HCAPLUS

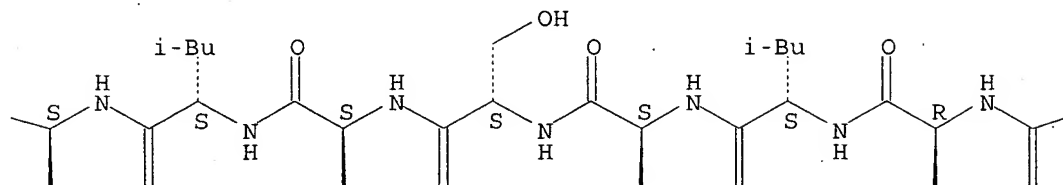
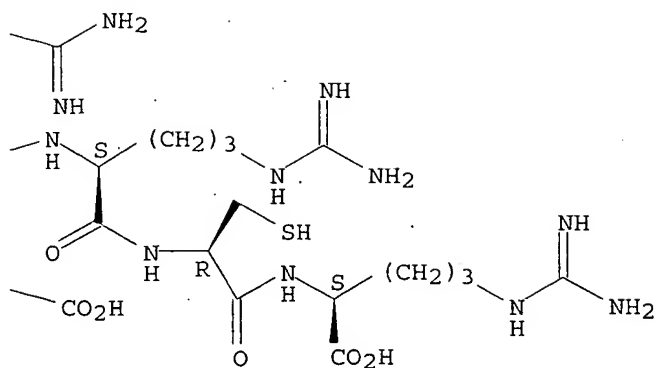
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Absolute stereochemistry.

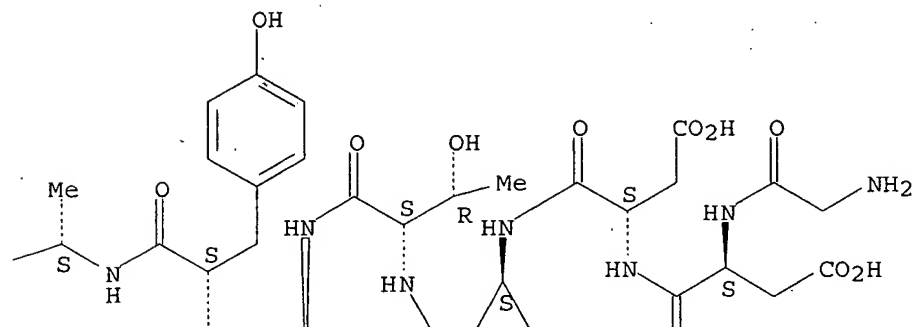
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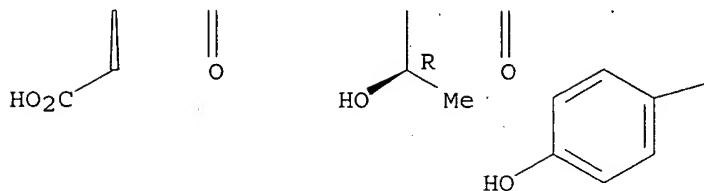
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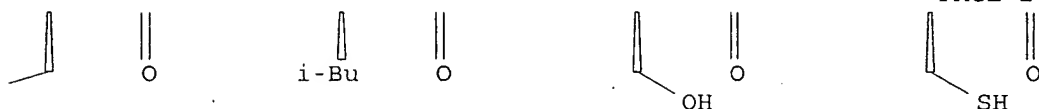
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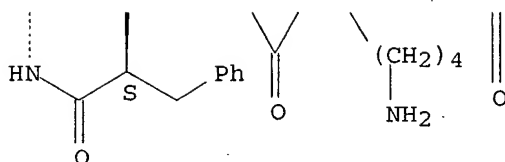
PAGE 2-A



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L20 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:1007834 HCAPLUS

DOCUMENT NUMBER: 140:71034

TITLE: Insulin and IGF-1 receptor peptide agonists and antagonists, and therapeutic use

INVENTOR(S): Pillutla, Renuka; Brissette, Renee; Blume, Arthur J.; Schaffer, Lauge; Brandt, Jacob; Goldstein, Neil I.; Spetzler, Jane; Ostergaard, Soren; Hansen, Per Hertz

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 203 pp., Cont.-in-part of U.S. Pat. Appl. 2003 195,147.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003236190	A1	20031225	US 2002-253471	20020924
US 2003195147	A1	20031016	US 2001-962756	20010924
US 6875741	B2	20050405		

PRIORITY APPLN. INFO.: US 1998-146127. B2 19980902  
US 2000-538038 A2 20000329  
US 2001-962756 A2 20010924

AB Peptide sequences capable of binding to insulin and/or insulin-like growth factor receptors with either agonist or antagonist activity and identified from various peptide libraries are disclosed. The invention also

identifies at least two different binding sites which are present on insulin and insulin-like growth factor receptors, and which selectively bind the peptides of this invention. As agonists, certain of the peptides of this invention may be useful for development as therapeutics to supplement or replace endogenous peptide hormones. The antagonists may also be developed as therapeutics for e.g. treatment of diabetes. Dimers and fusion proteins are also disclosed as insulin and IGF-I receptor modulators.

IT 365229-31-8 365229-50-1 365261-25-2  
506430-78-0 506430-80-4 506430-81-5  
506430-82-6 506430-83-7 508197-02-2  
508197-03-3

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

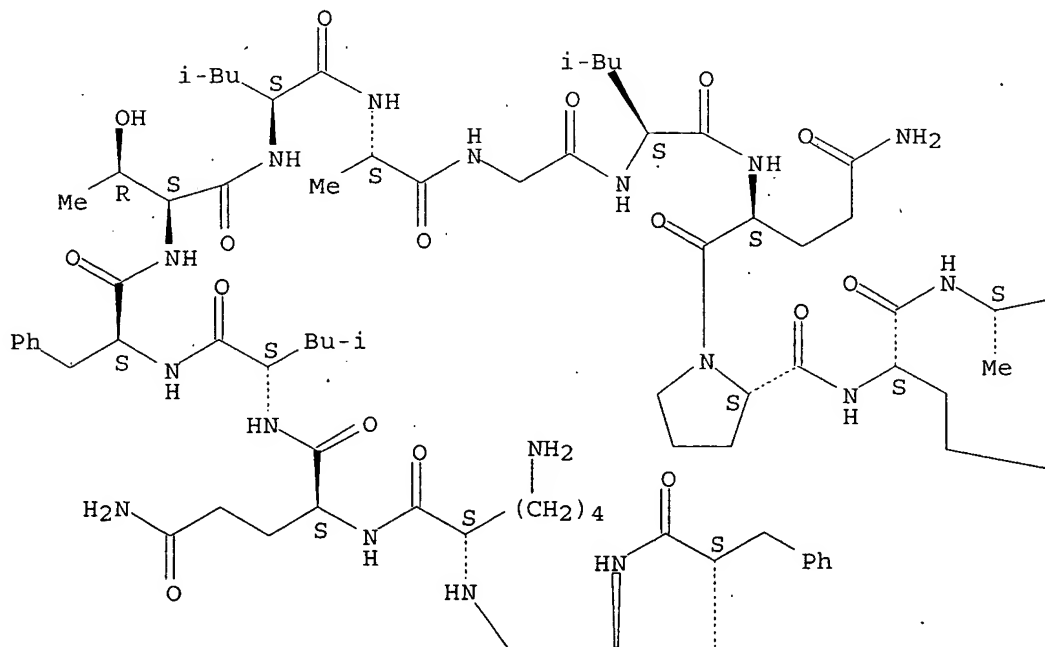
(amino acid sequence; peptides from various peptide libraries and their dimers and fusion proteins as modulators of insulin and IGF-1 receptors and therapeutic use)

RN 365229-31-8 HCAPLUS

CN L-Arginine, glycyl-L-leucyl-L-leucyl-L-phenylalanyl-L-cysteinyl-L-lysyl-L-glutamyl-L-leucyl-L-phenylalanyl-L-threonyl-L-leucyl-L-alanylglycyl-L-leucyl-L-glutamyl-L-prolyl-L- $\alpha$ -glutamyl-L-alanylglycyl-L-cysteinyl-L-valyl-L-seryl-L-seryl-L-seryl- (9CI) (CA INDEX NAME)

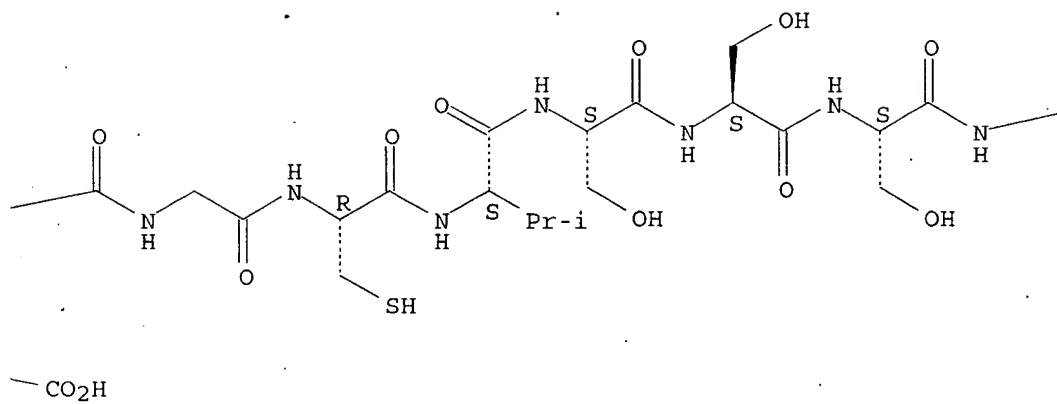
Absolute stereochemistry.

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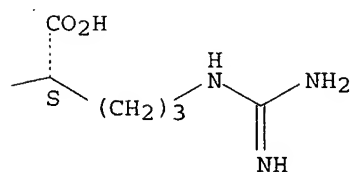




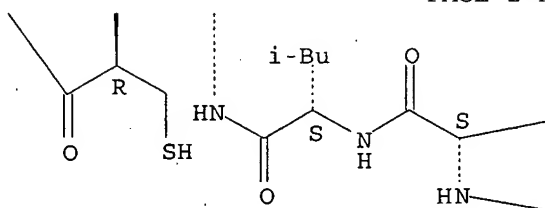
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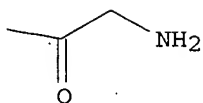
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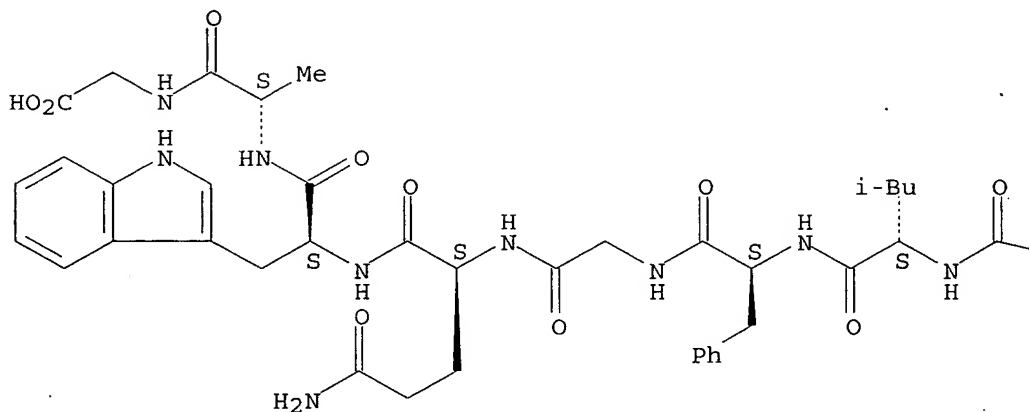
Bu-i



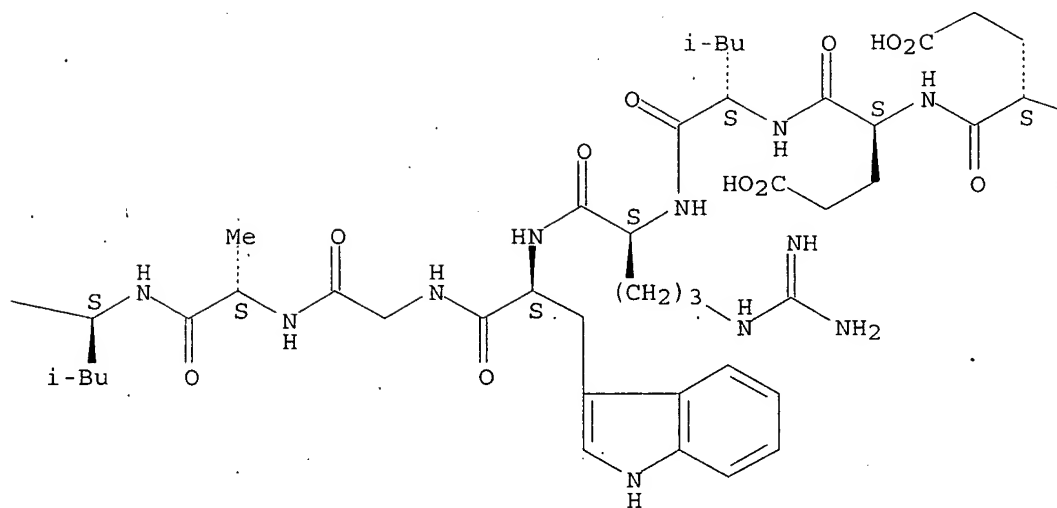
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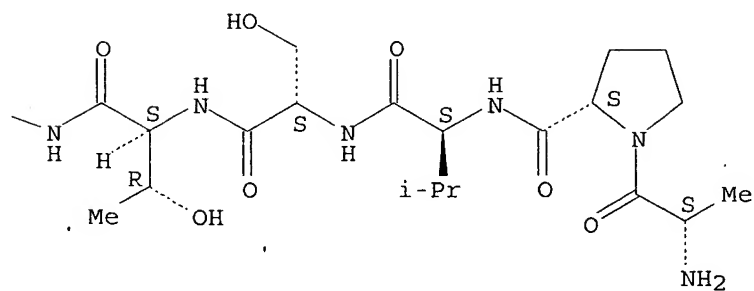
Absolute stereochemistry.



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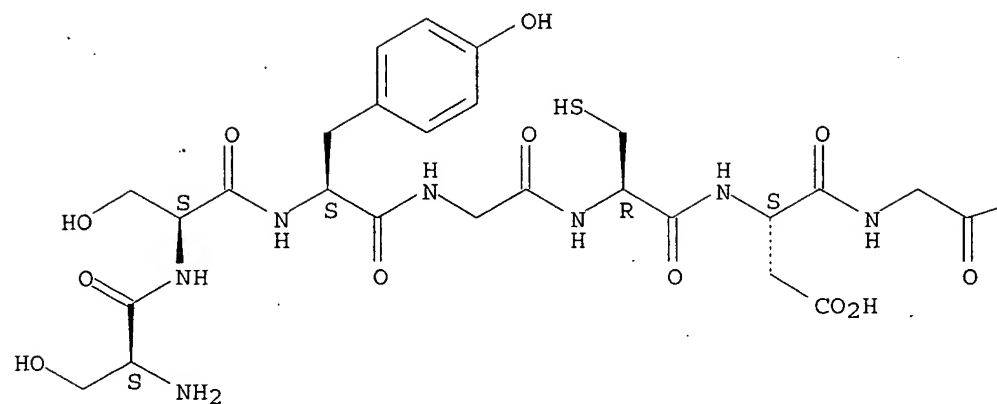


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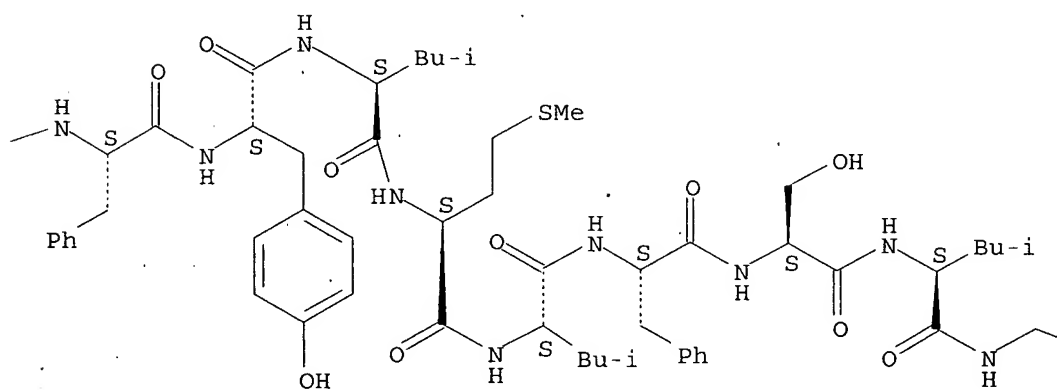
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 phenylalanyl-L-seryl-L-leucylglycyl-L-leucyl-L-valyl-L-alanyl-L-seryl-L-  
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 INDEX NAME)

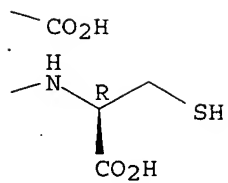
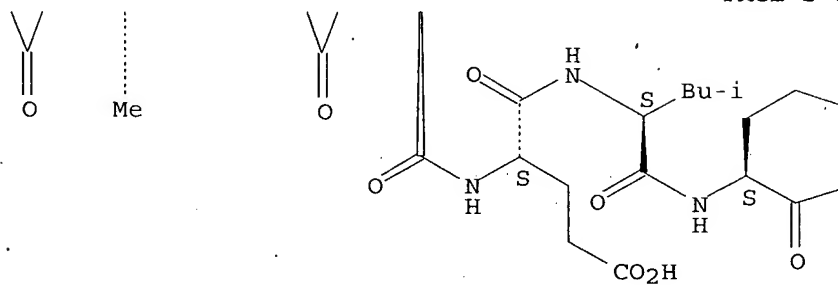
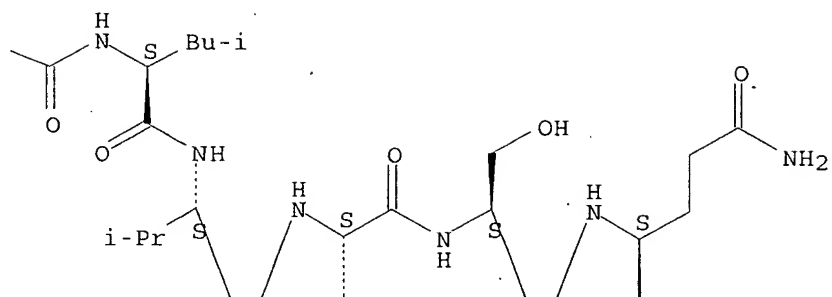
Absolute stereochemistry.

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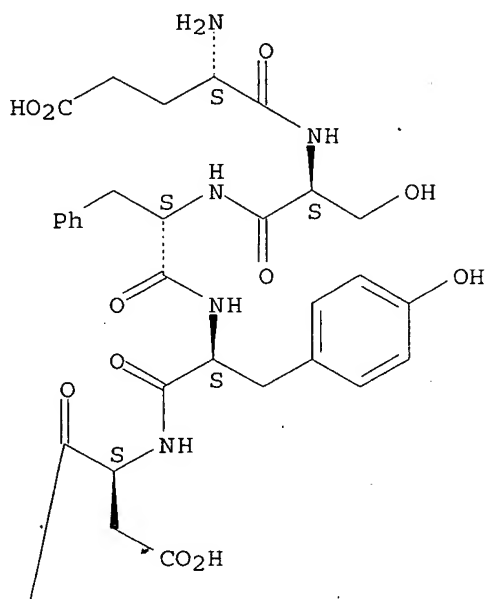


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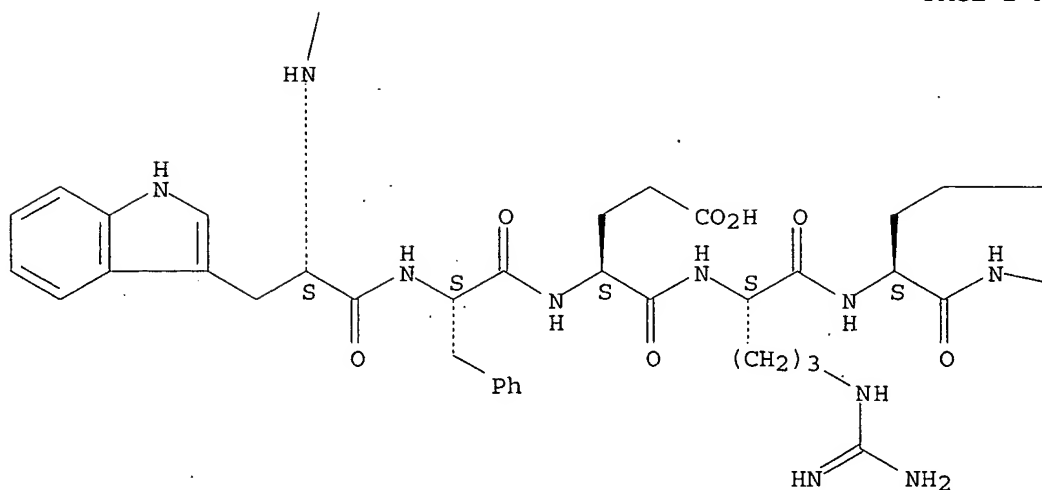
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Absolute stereochemistry.

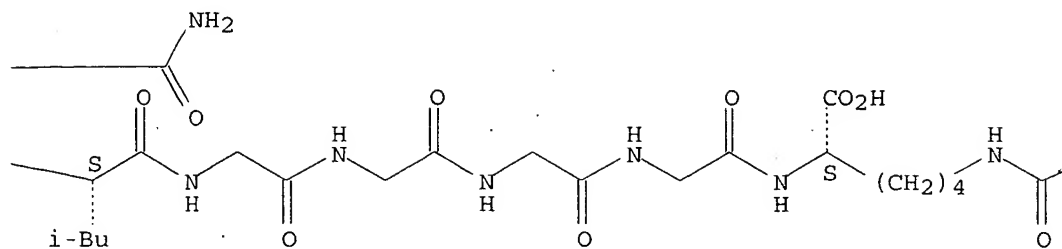
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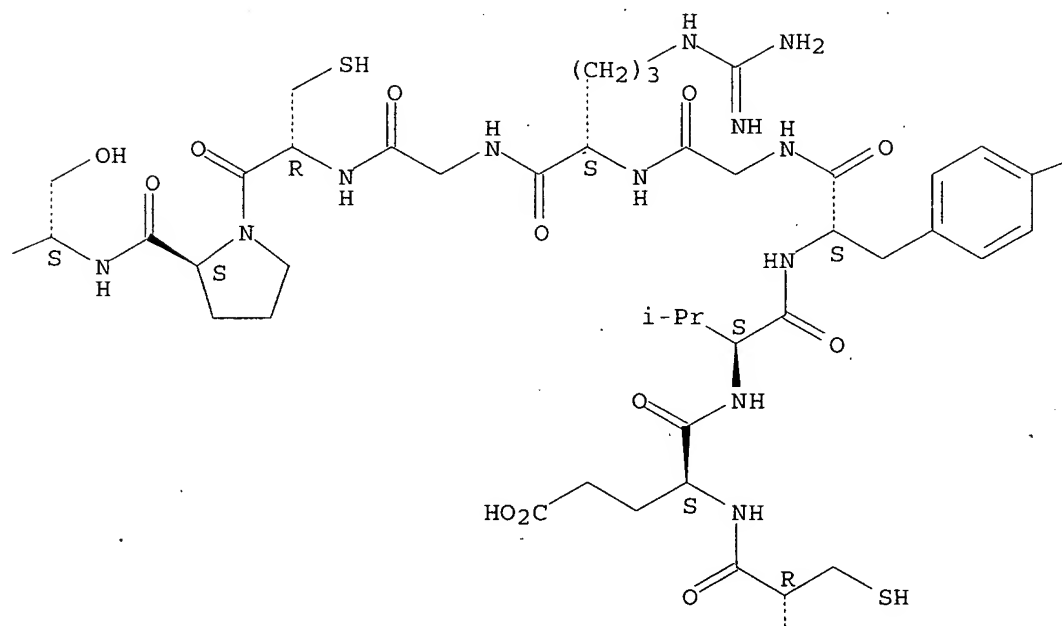
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PAGE 2-C



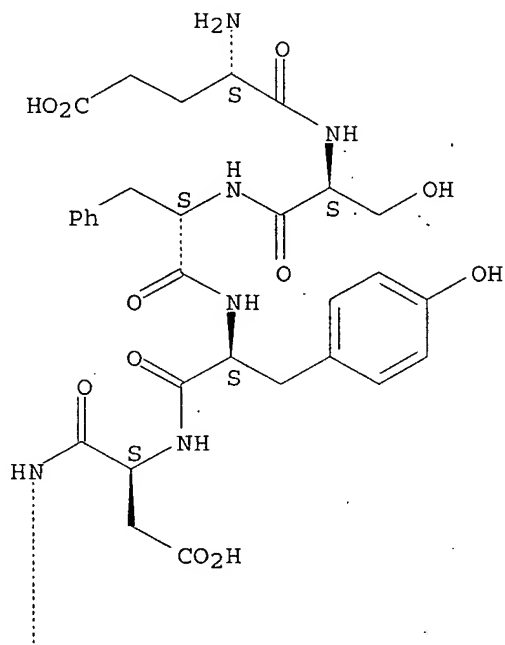
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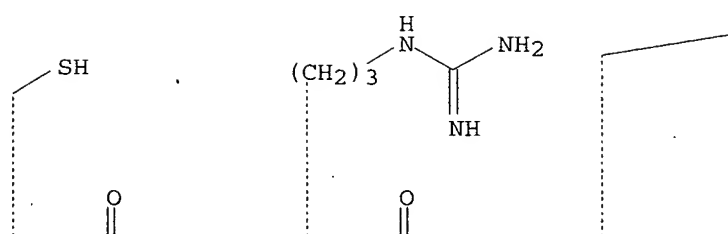
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Absolute stereochemistry.

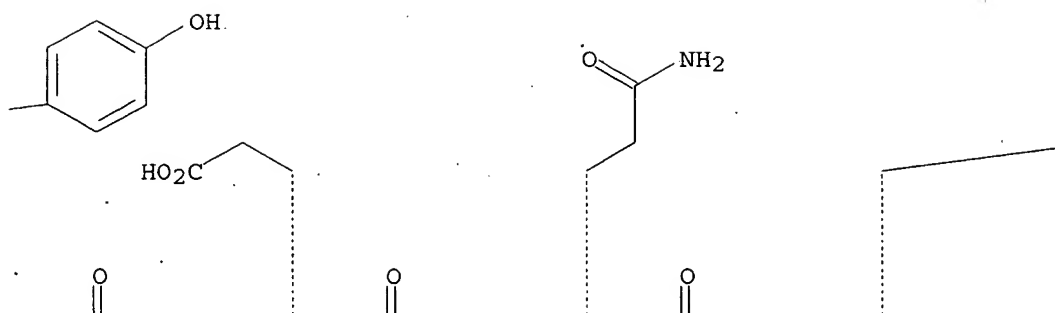


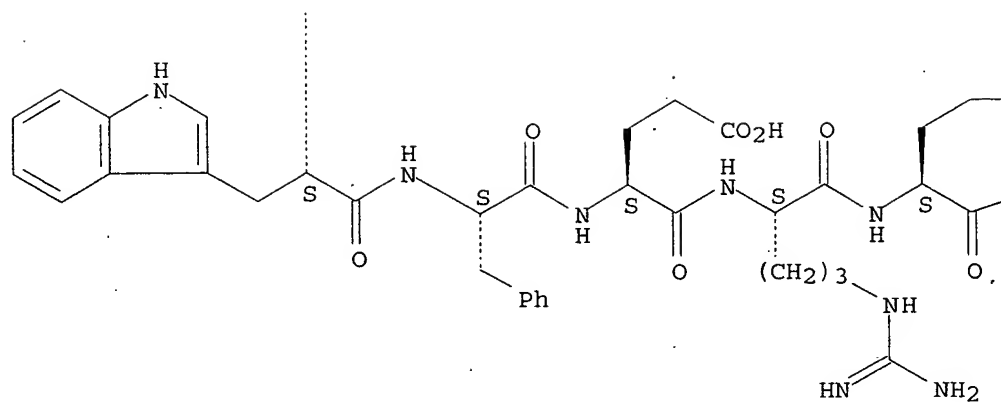
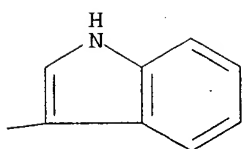


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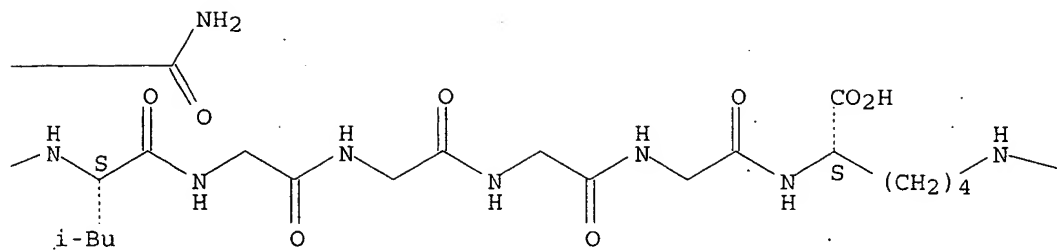


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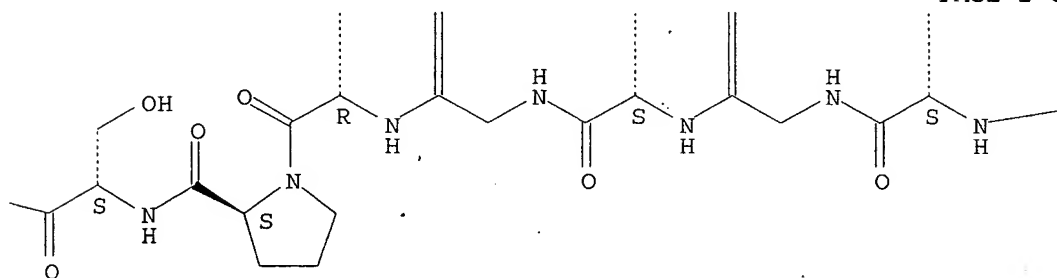




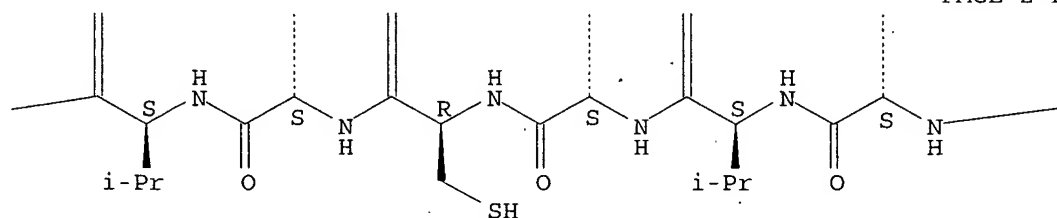
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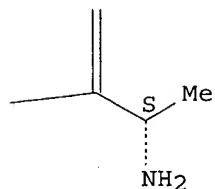
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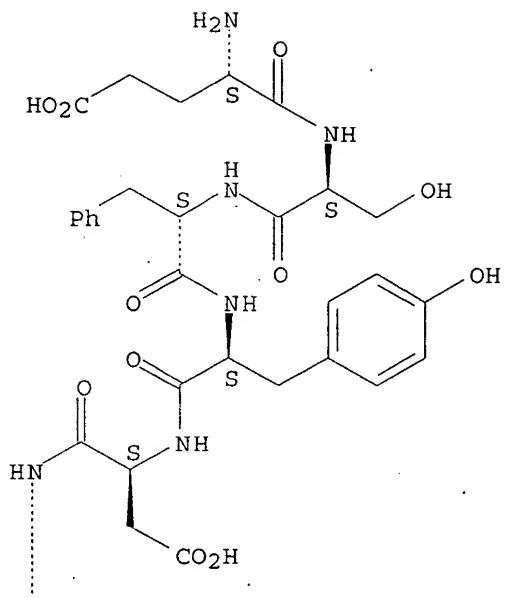


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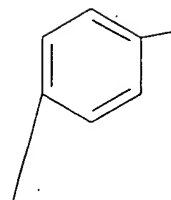
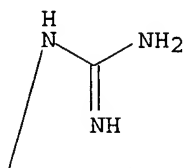
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Absolute stereochemistry.

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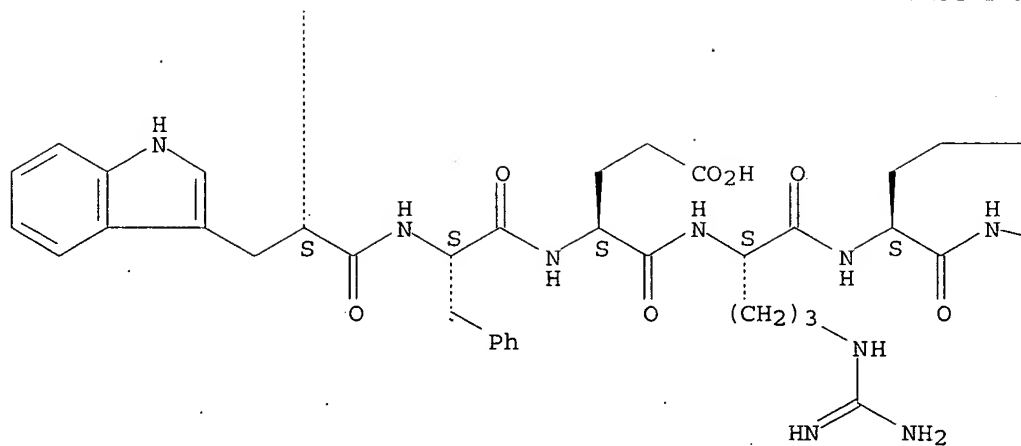
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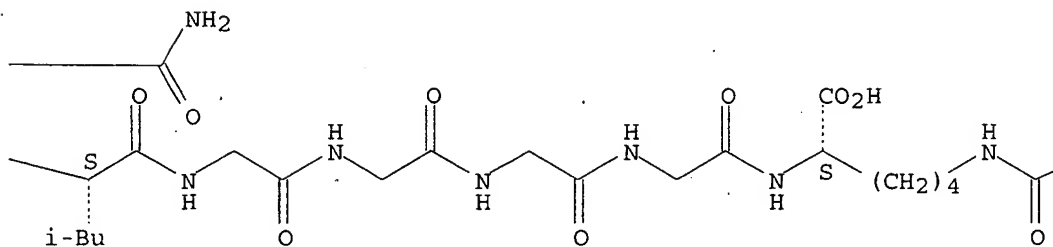
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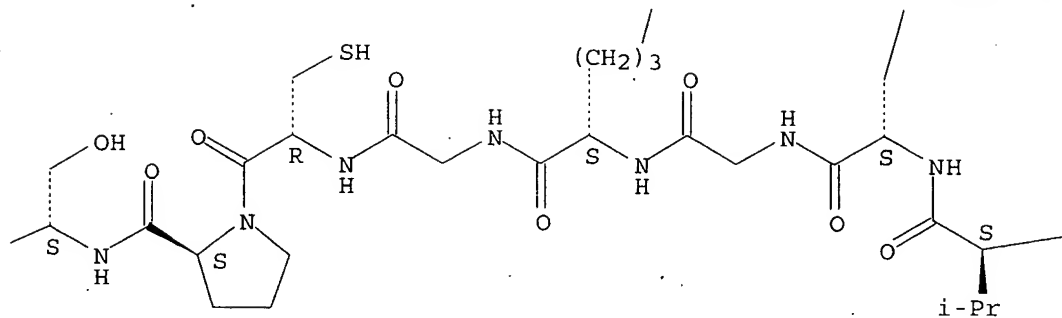
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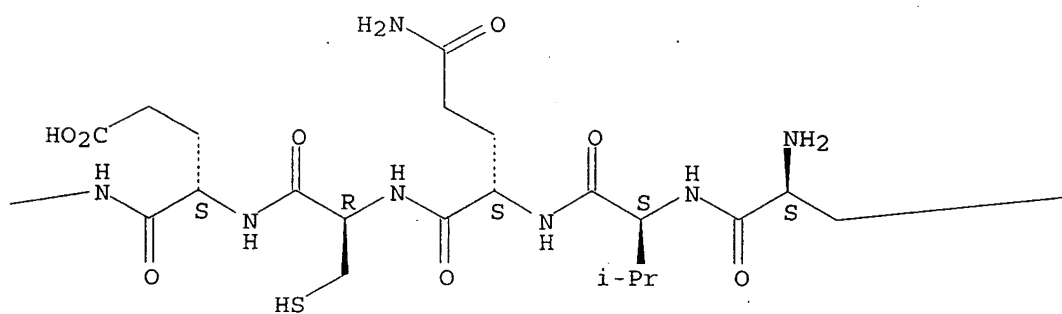
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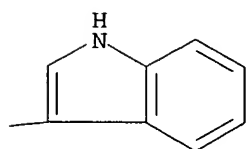
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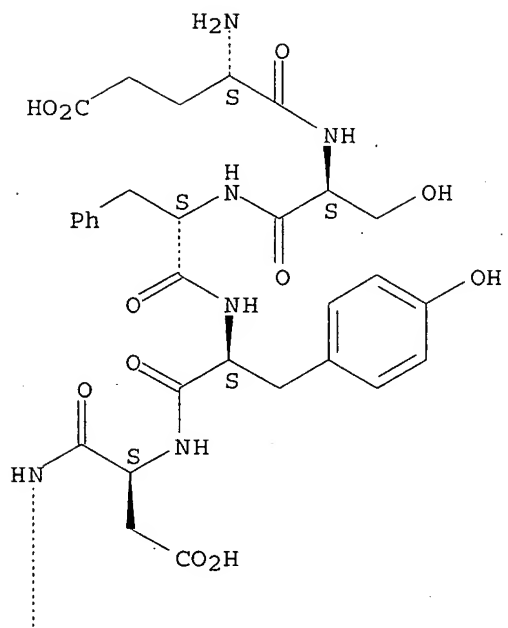


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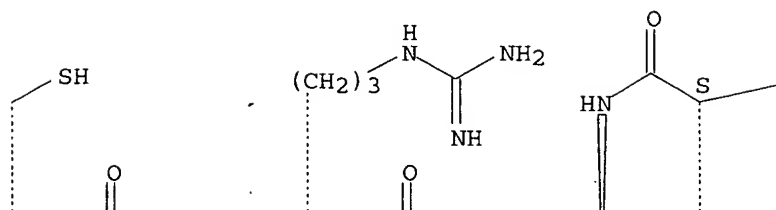
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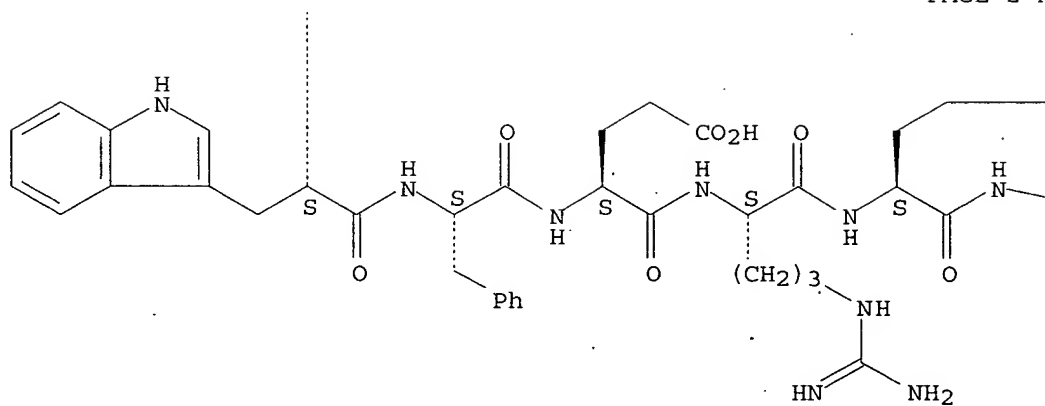
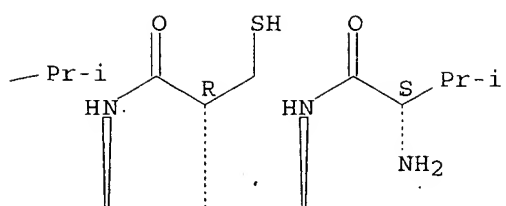
Absolute stereochemistry.

PAGE 1-A



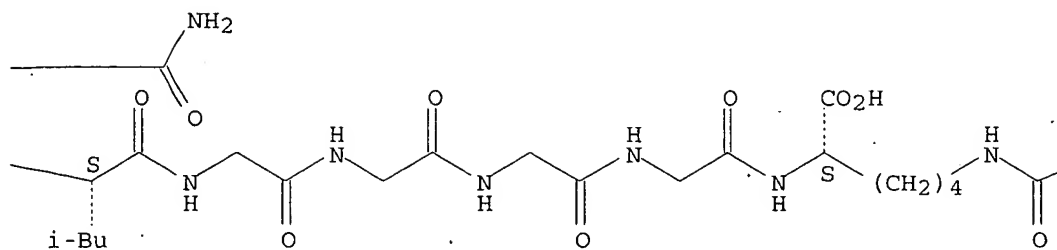
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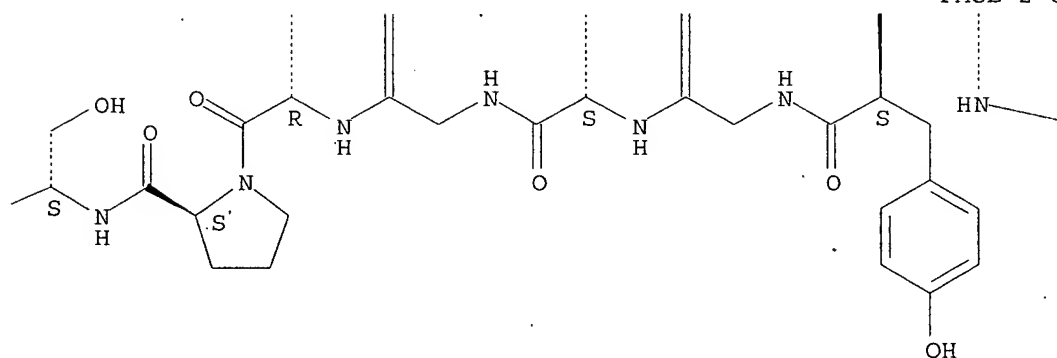




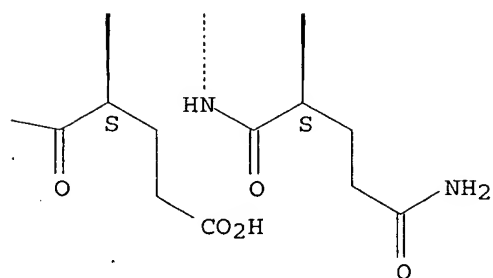
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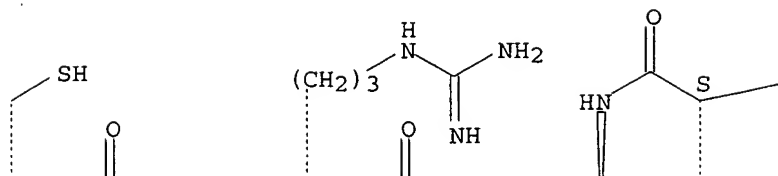
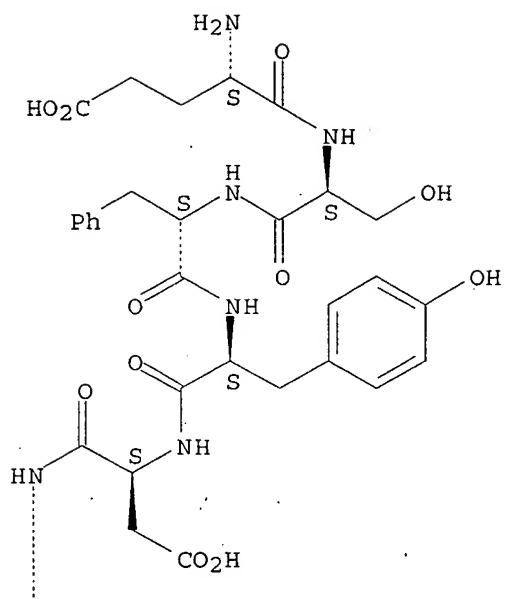
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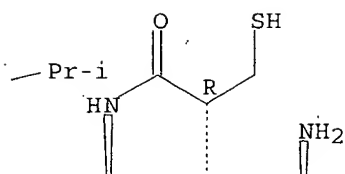


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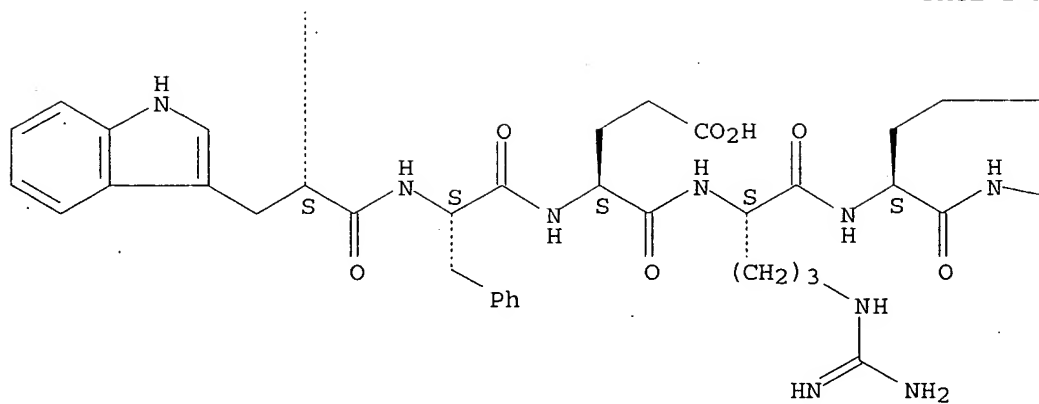
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Absolute stereochemistry.

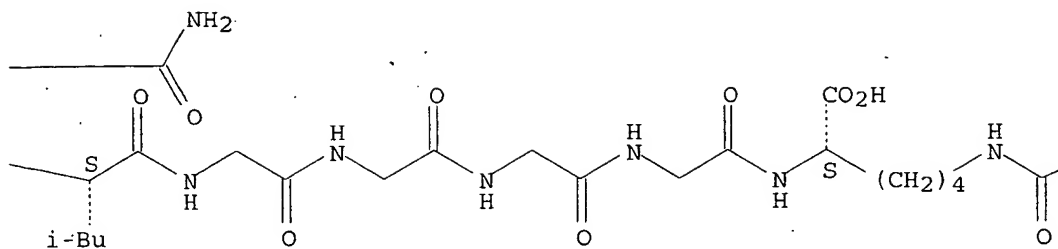




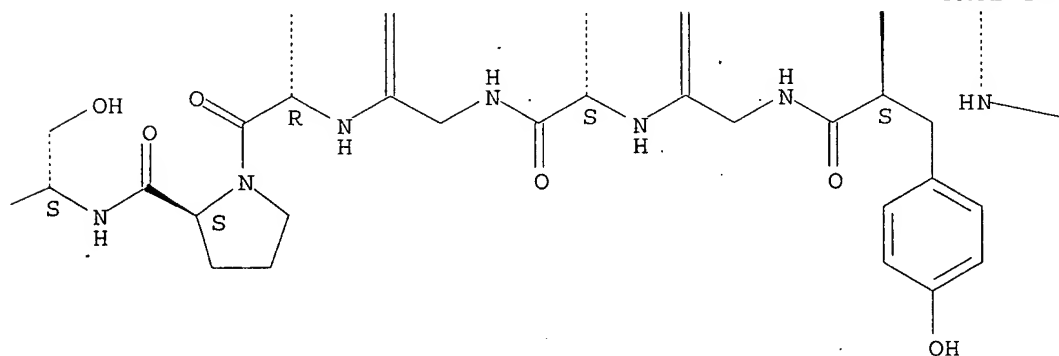
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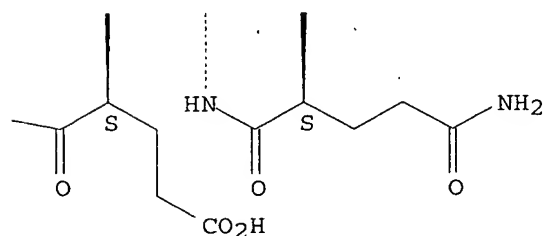
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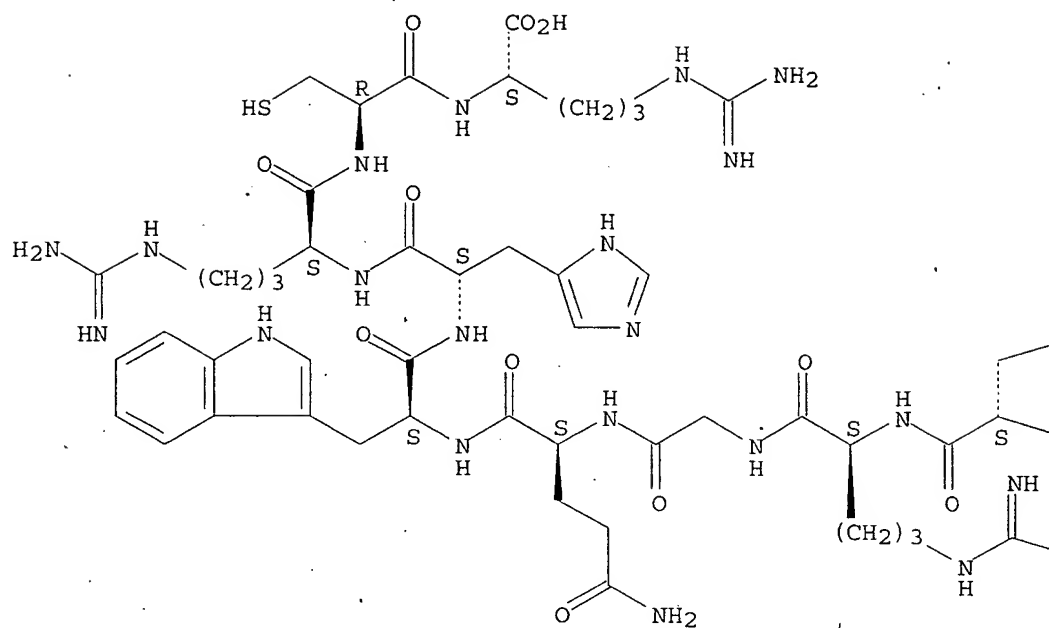


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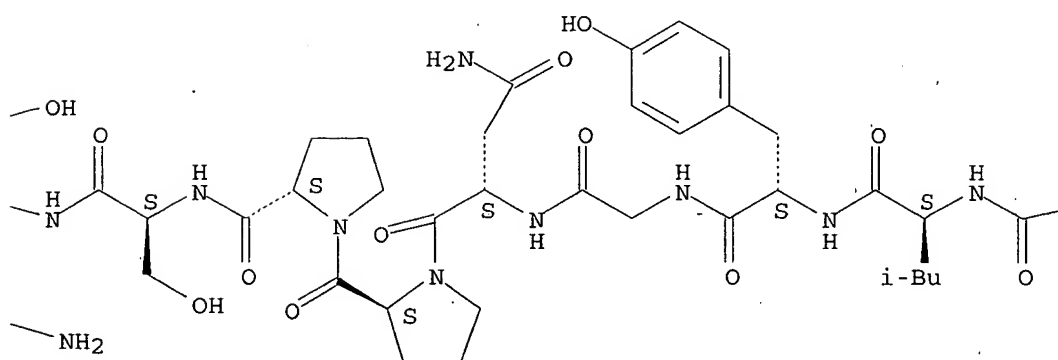
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Absolute stereochemistry.

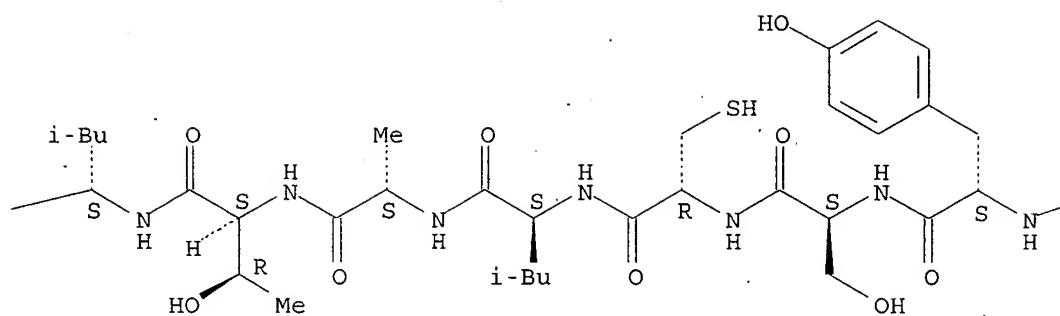
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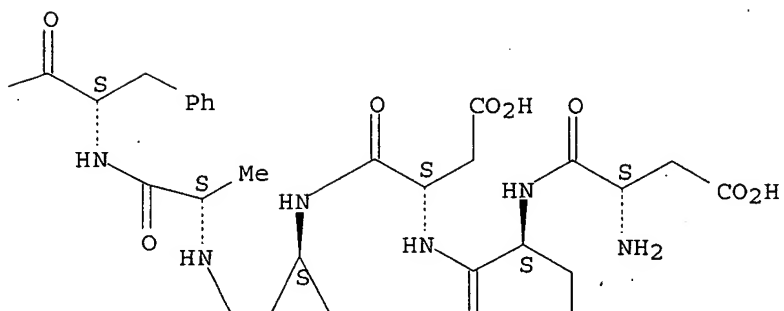
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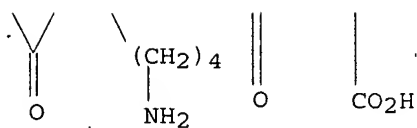
PAGE 1-C



PAGE 1-D



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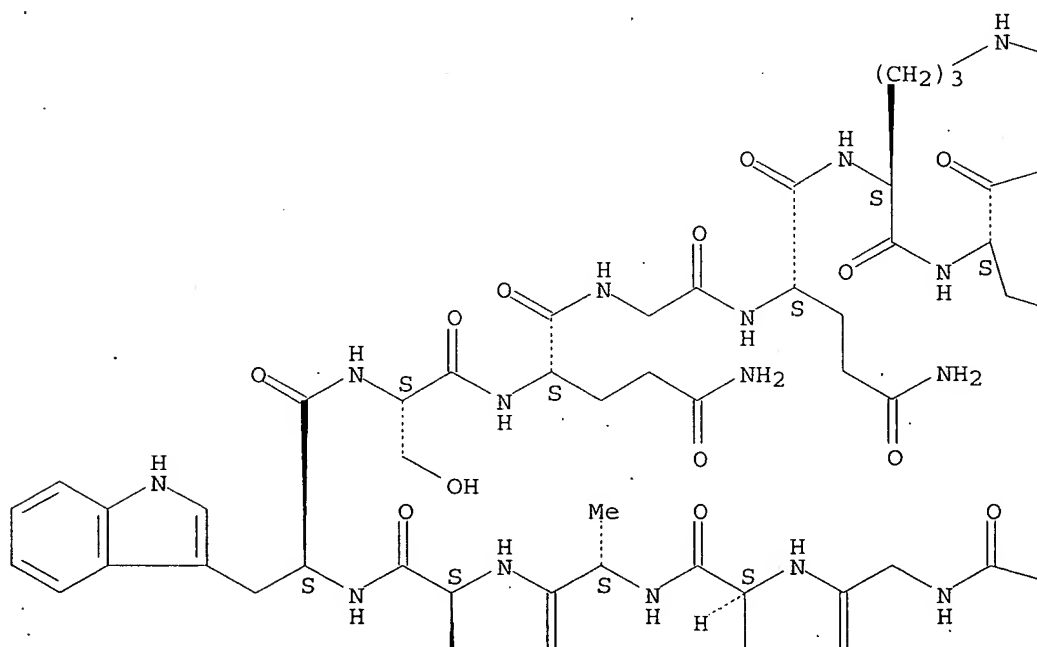


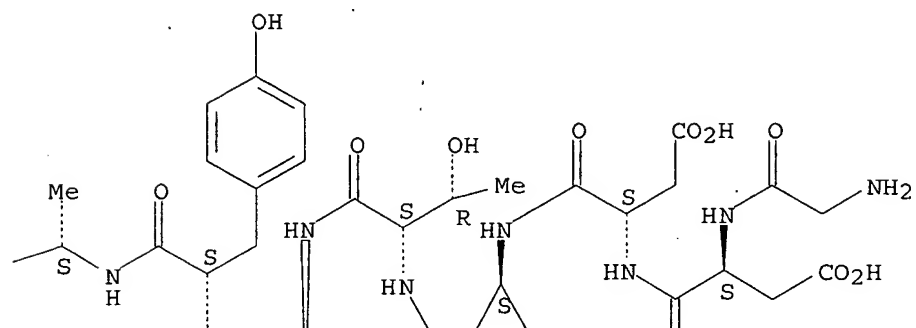
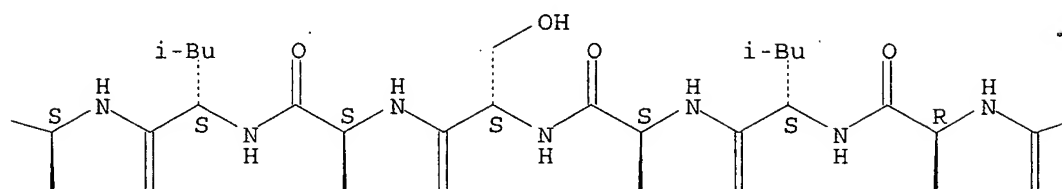
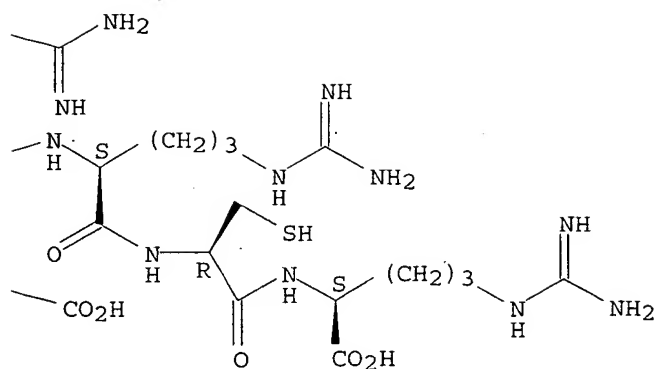
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Absolute stereochemistry.

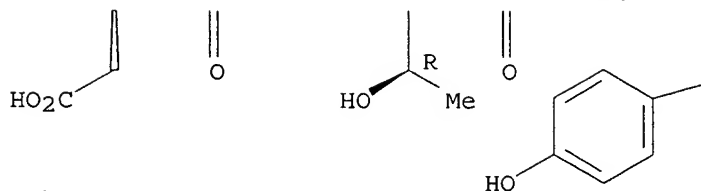
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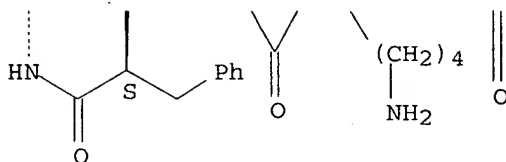
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PAGE 2-C



L20 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:818130 HCAPLUS

DOCUMENT NUMBER: 139:317461

TITLE: Insulin and IGF-1 receptor peptide agonists and antagonists, and therapeutic use

INVENTOR(S): Pillutla, Renuka; Brissette, Renee; Blume, Arthur J.; Schaffer, Lauge; Brandt, Jakob; Goldstein, Neil I.; Spetzler, Jane; Ostergaard, Soren; Hansen, Per Hertz USA

PATENT ASSIGNEE(S): U.S. Pat. Appl. Publ., 191 pp., Cont.-in-part of U.S. Ser. No. 538,038.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003195147	A1	20031016	US 2001-962756	20010924
US 6875741	B2	20050405		
CA 2459999	AA	20030403	CA 2002-2459999	20020924
WO 2003027246	A2	20030403	WO 2002-US30412	20020924
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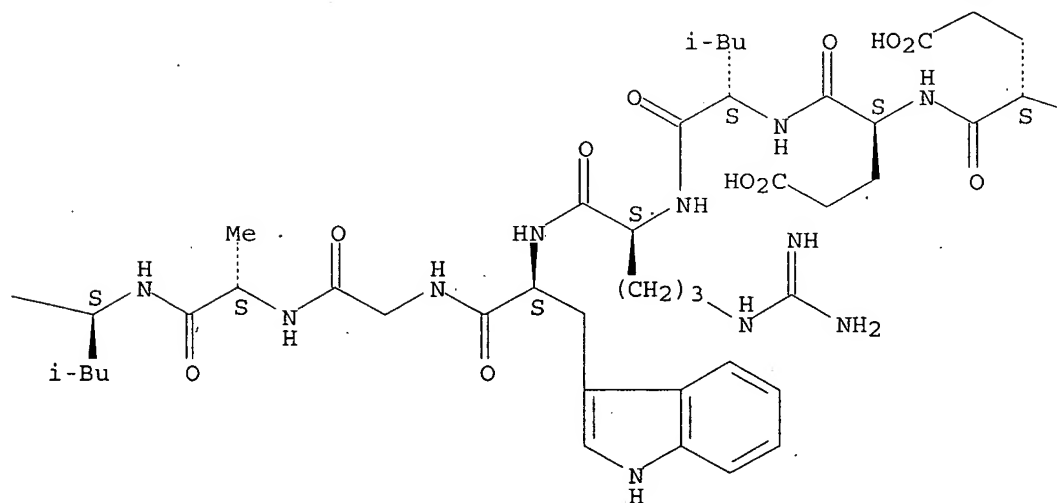
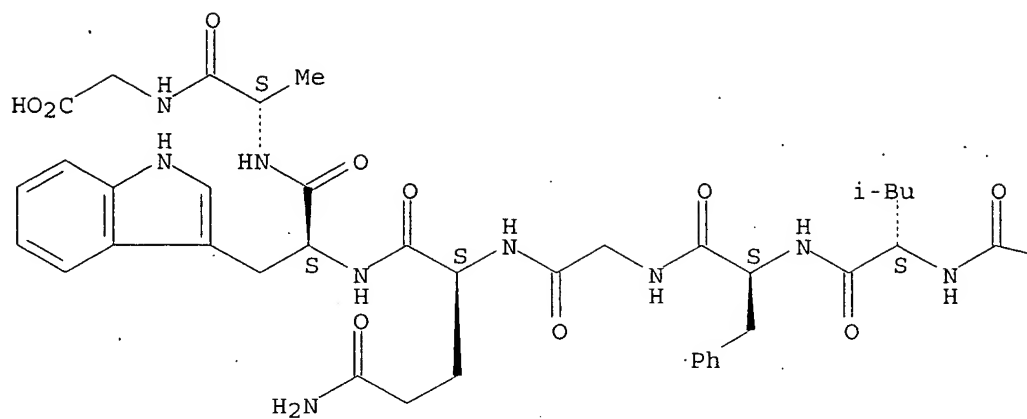
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AB Peptide sequences capable of binding to insulin and/or insulin-like growth factor receptors with either agonist or antagonist activity and identified from various peptide libraries are disclosed. The invention also identifies at least two different binding sites which are present on insulin and insulin-like growth factor receptors, and which selectively bind the peptides of this invention. As agonists, certain of the peptides of this invention may be useful for development as therapeutics to supplement or replace endogenous peptide hormones. The antagonists may also be developed as therapeutics for e.g. treatment of diabetes. Dimers and fusion proteins are also disclosed as insulin and IGF-I receptor modulators.

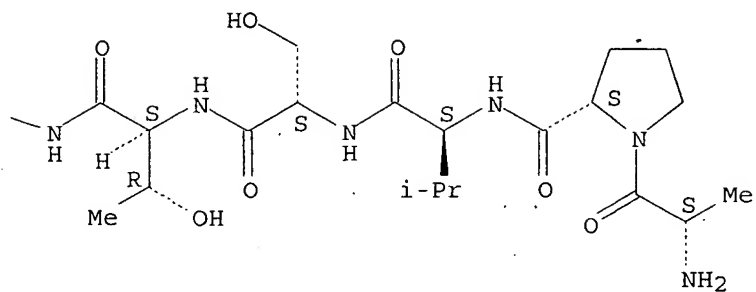
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 RL: CST (Combinatorial study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); CMBI (Combinatorial study); USES (Uses)  
 (amino acid sequence; peptides from various peptide libraries and their dimers and fusion proteins as modulators of insulin and IGF-1 receptors and therapeutic use)

RN 365229-50-1 HCAPLUS  
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Absolute stereochemistry.



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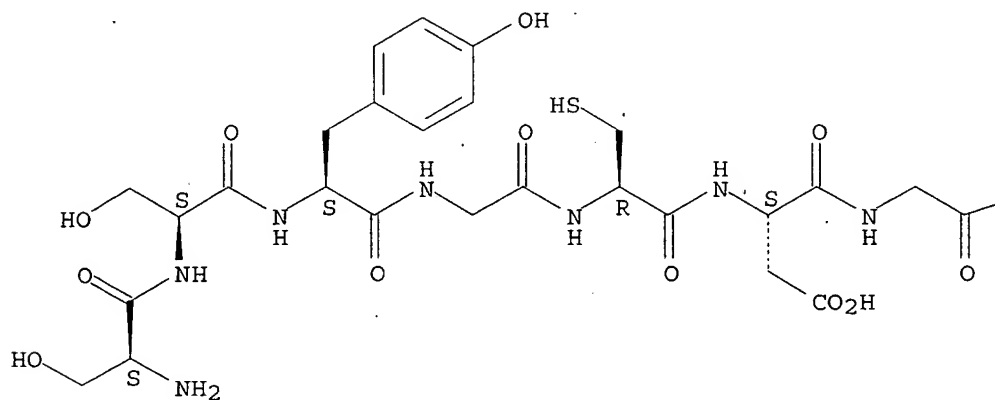


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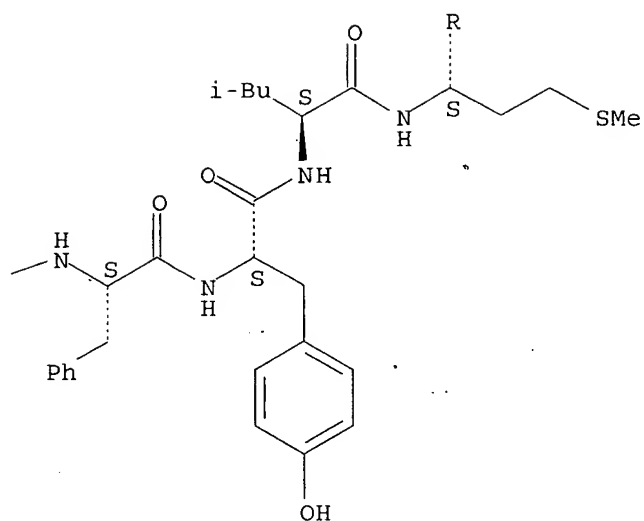
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Absolute stereochemistry.

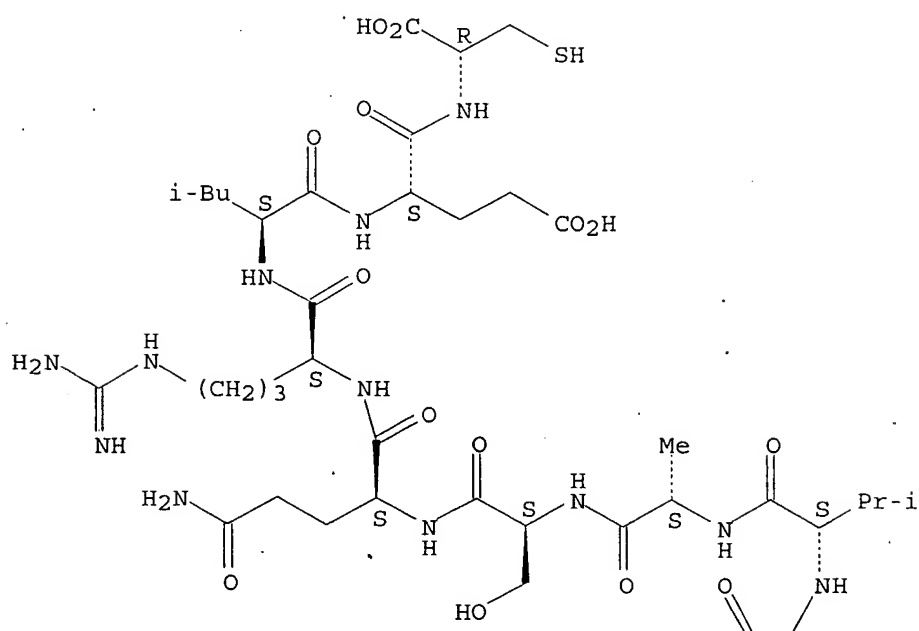
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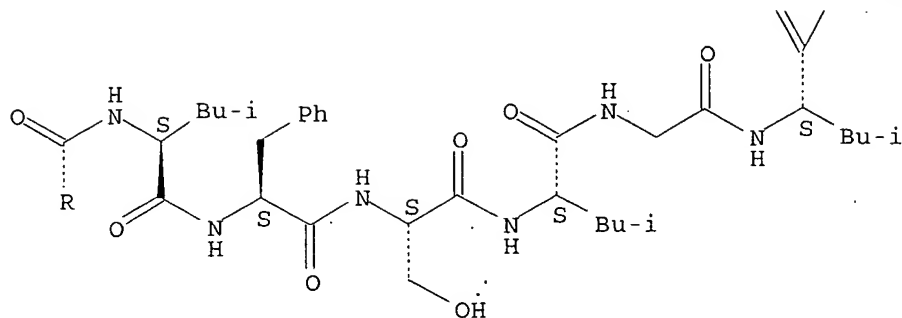
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508197-02-2 508197-03-3 613215-89-7

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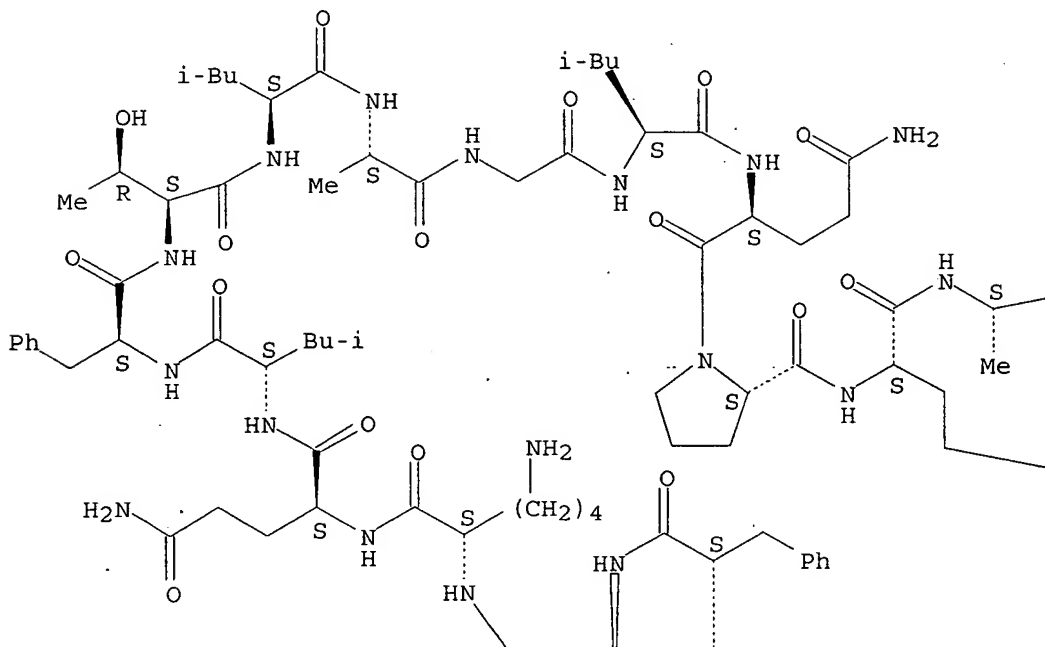
(amino acid sequence; peptides from various peptide libraries and their dimers and fusion proteins as modulators of insulin and IGF-1 receptors and therapeutic use)

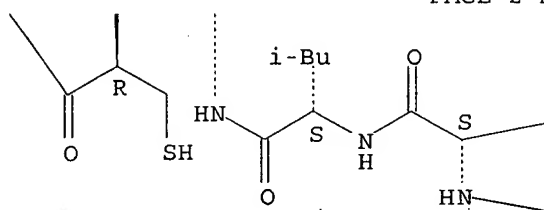
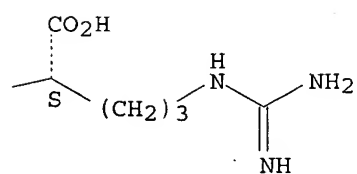
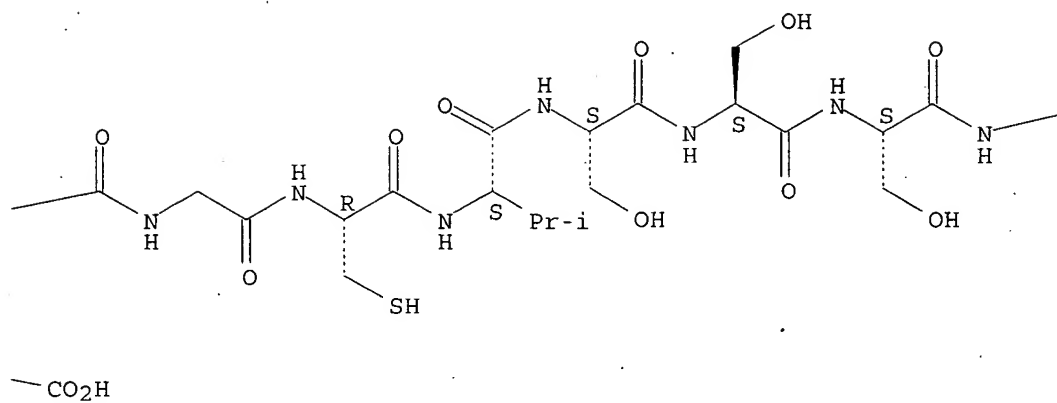
RN 365229-31-8 HCAPLUS

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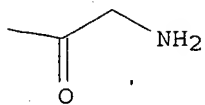
Absolute stereochemistry.

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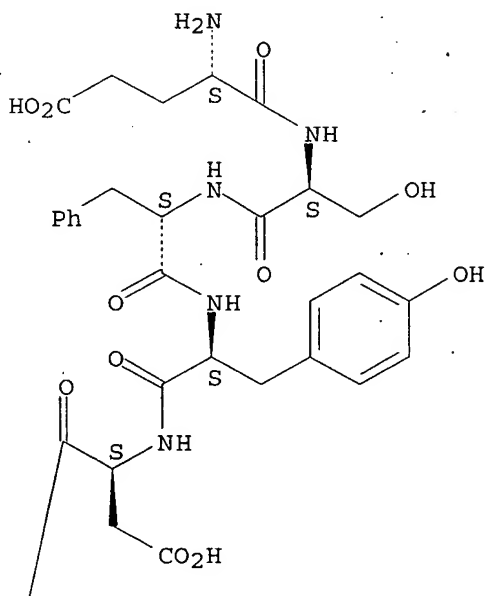
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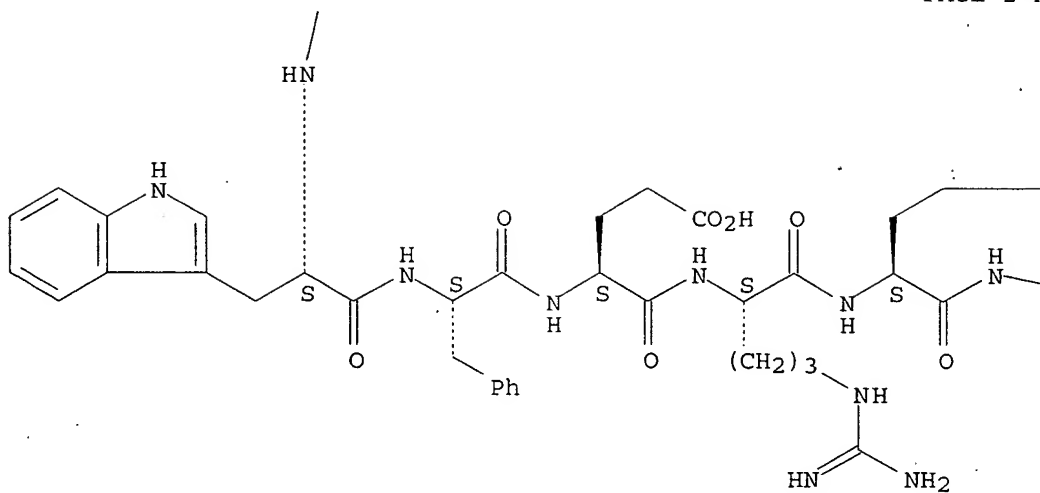
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Absolute stereochemistry.

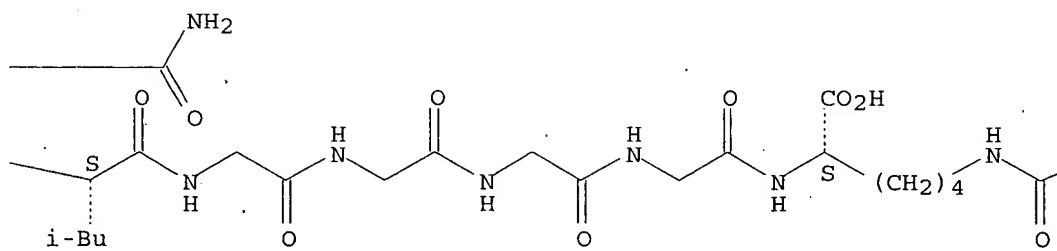




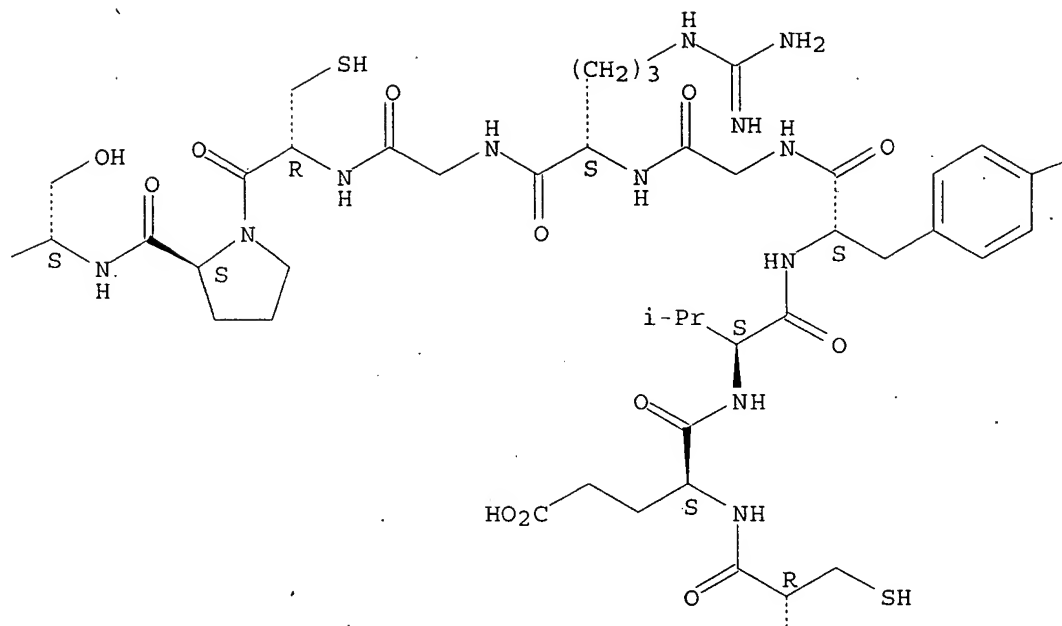
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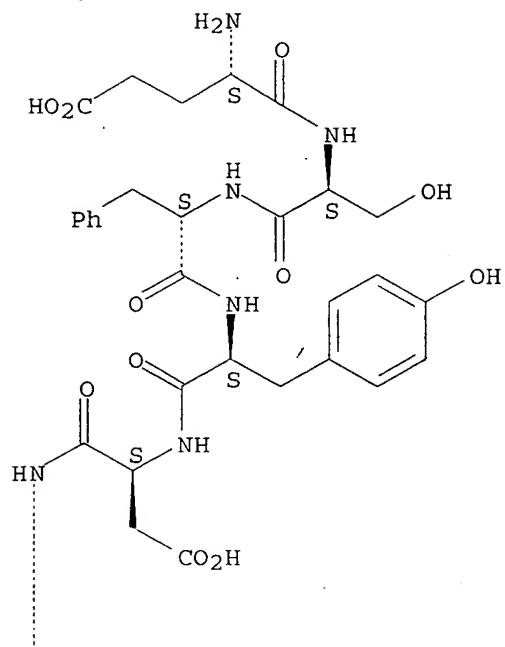
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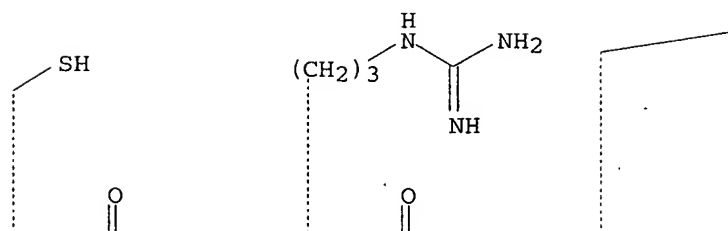
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 valyl-L-glutaminyl-L-cysteinyl-L- $\alpha$ -glutamyl-L-valyl-L-tyrosylglycyl-  
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Absolute stereochemistry.

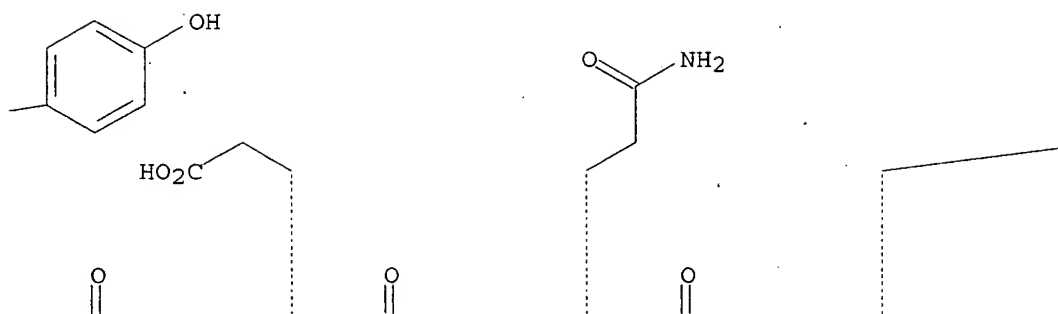
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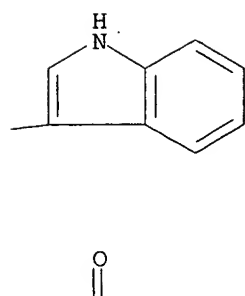
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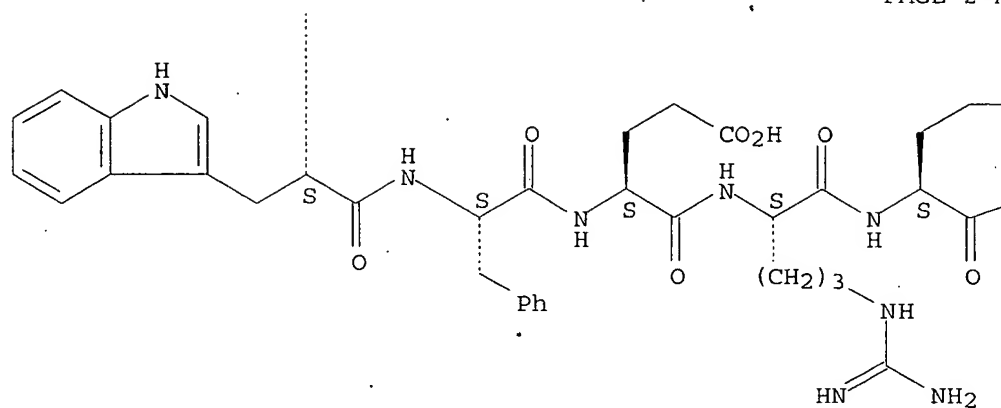
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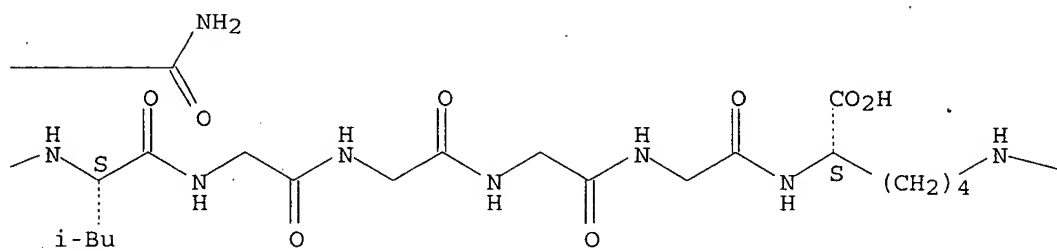
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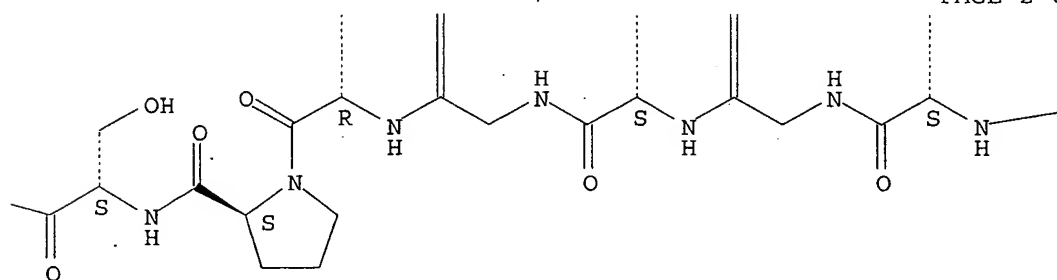
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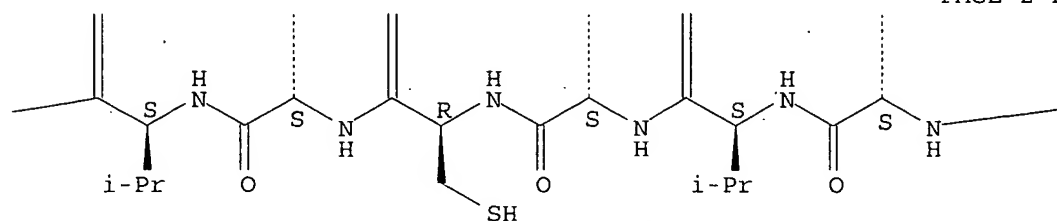
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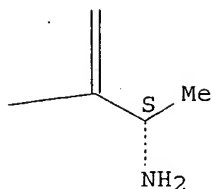
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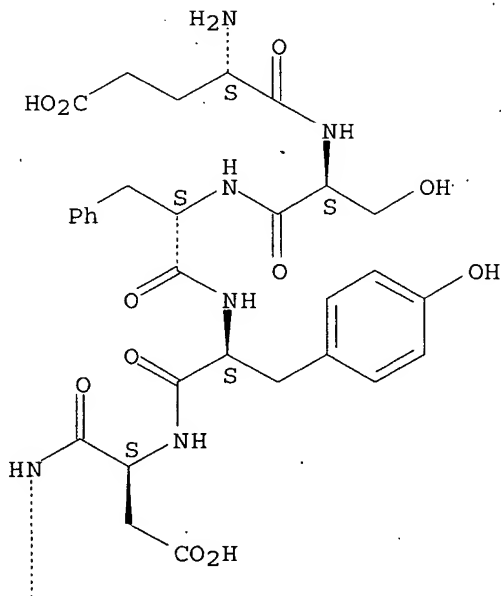


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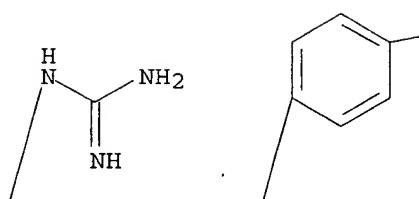
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Absolute stereochemistry.

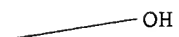
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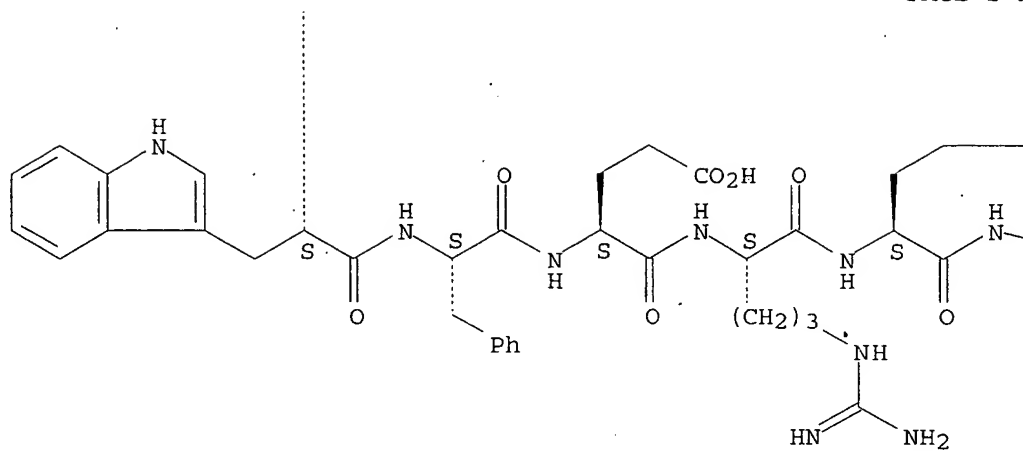
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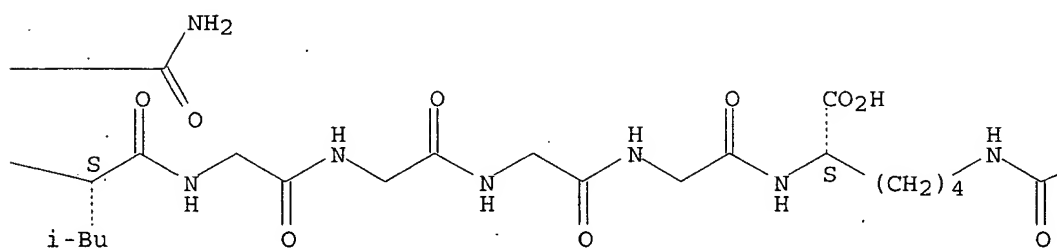
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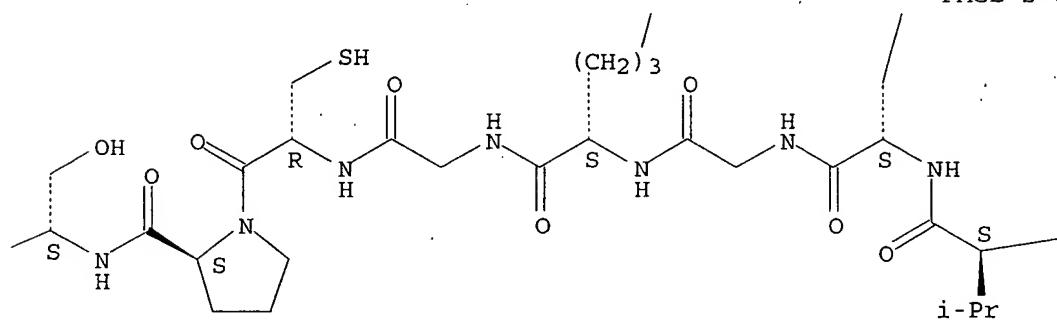
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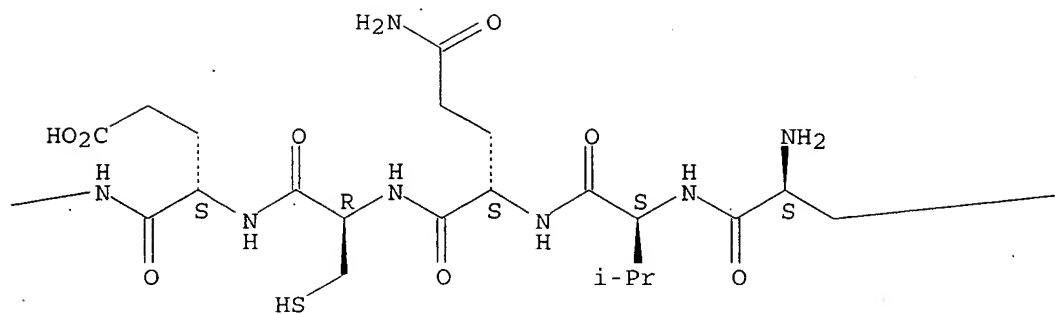


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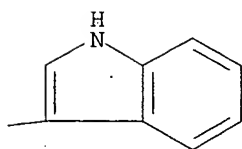




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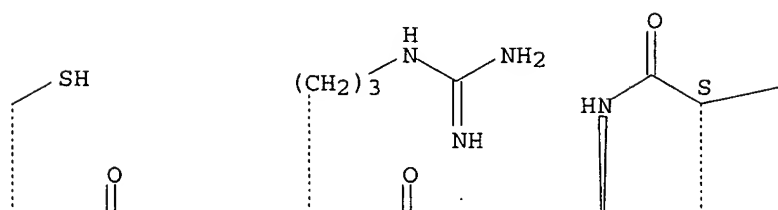
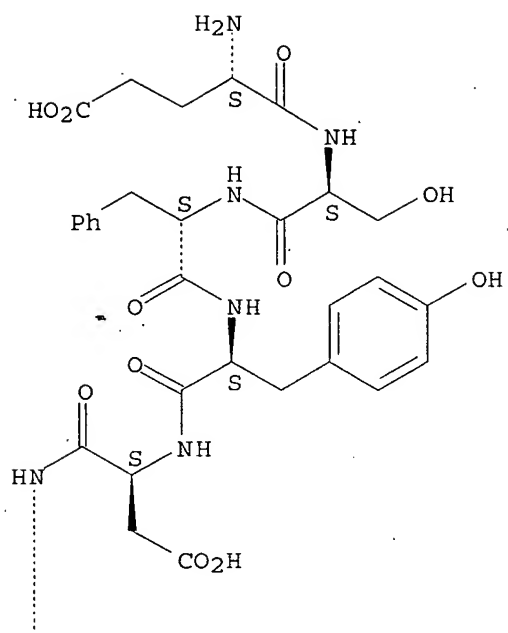
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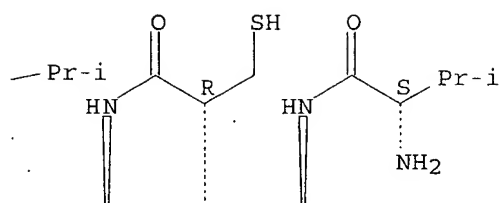
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 glutaminyl-L-leucylglycylglycylglycylglycyl-N6-(L-valyl-L-glutaminyl-L-  
 cysteinyl-L- $\alpha$ -glutamyl-L-valyl-L-tyrosylglycyl-L-arginylglycyl-L-  
 cysteinyl-L-prolyl-L-seryl)- (9CI) (CA INDEX NAME)

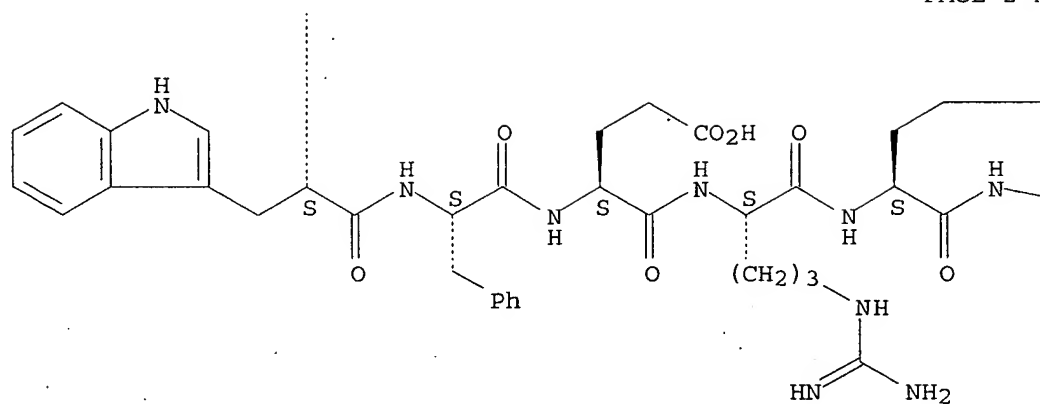
Absolute stereochemistry.



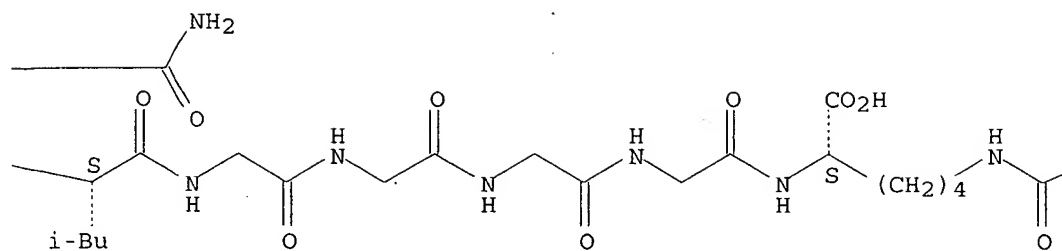
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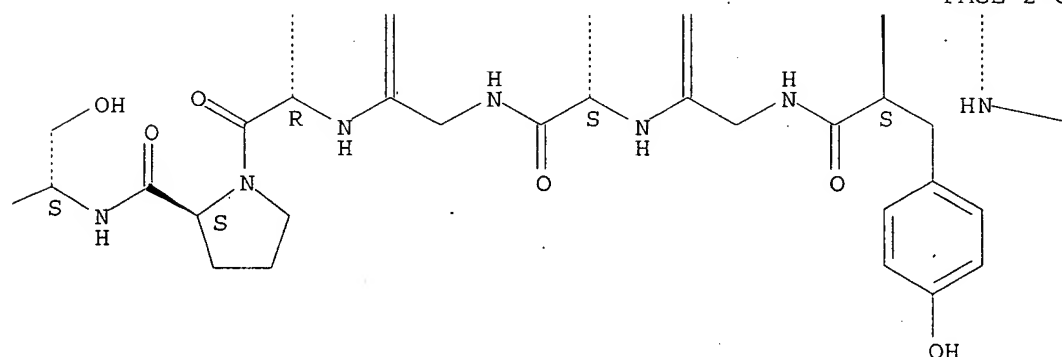
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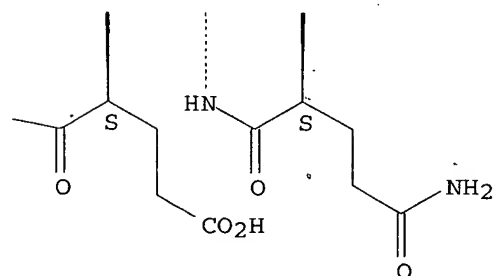
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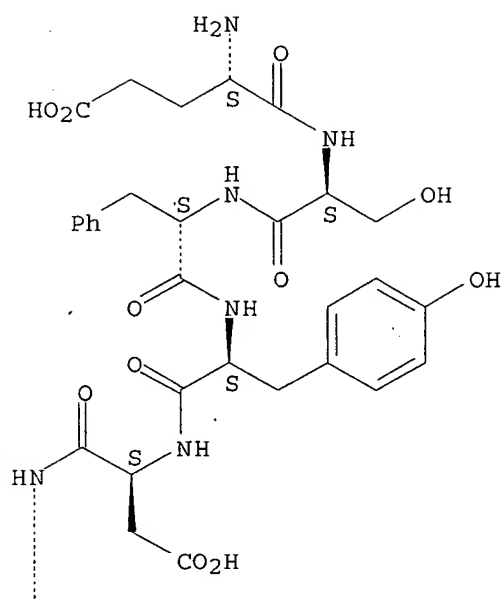


RN 506430-83-7 . HCAPLUS

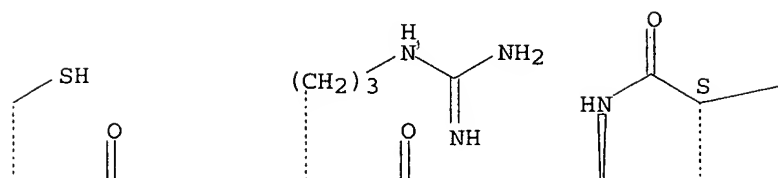
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Absolute stereochemistry.

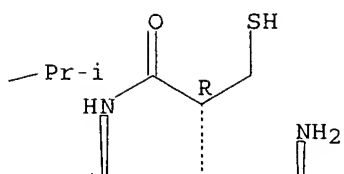
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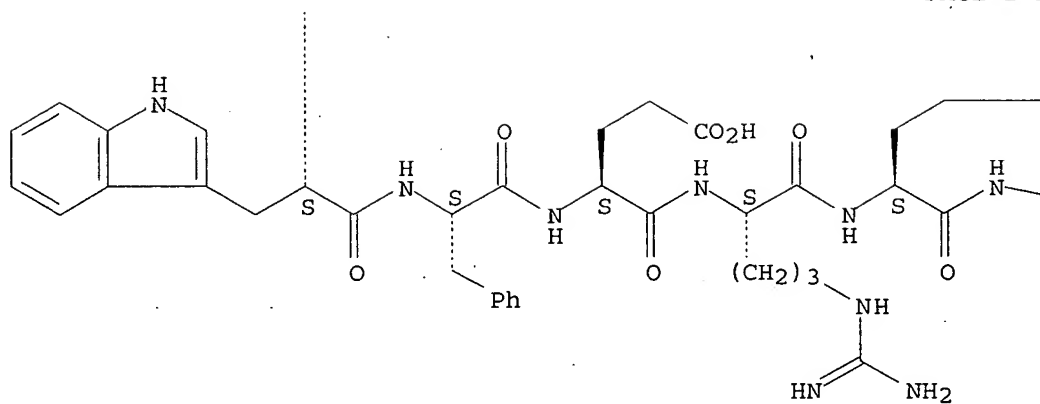
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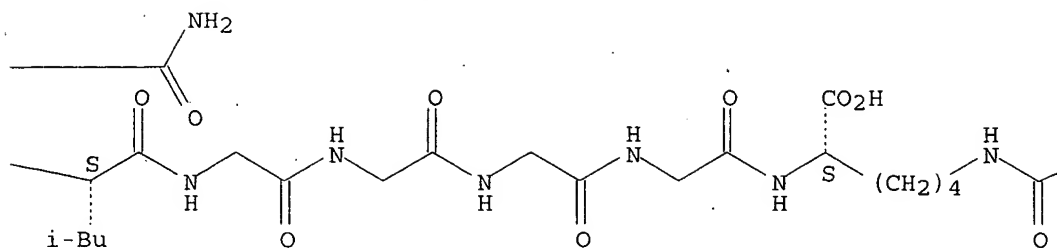
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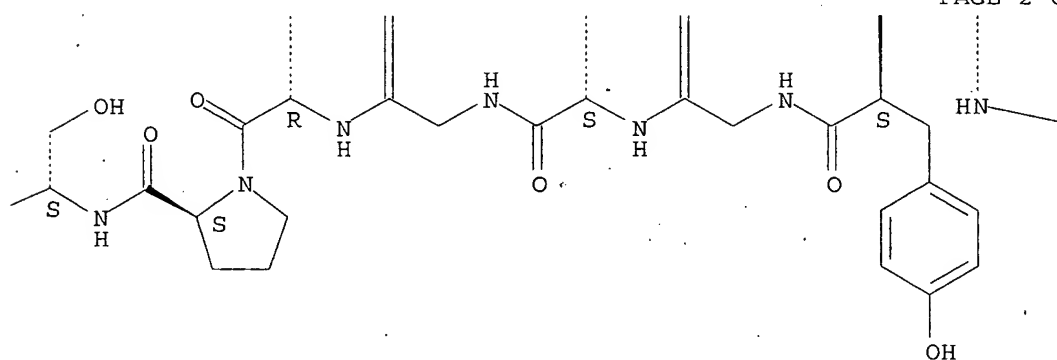
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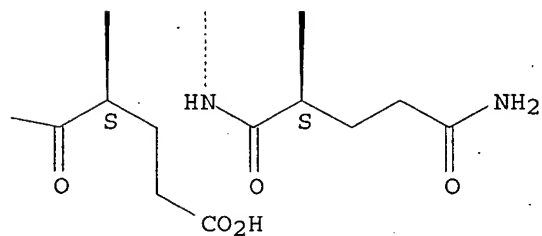
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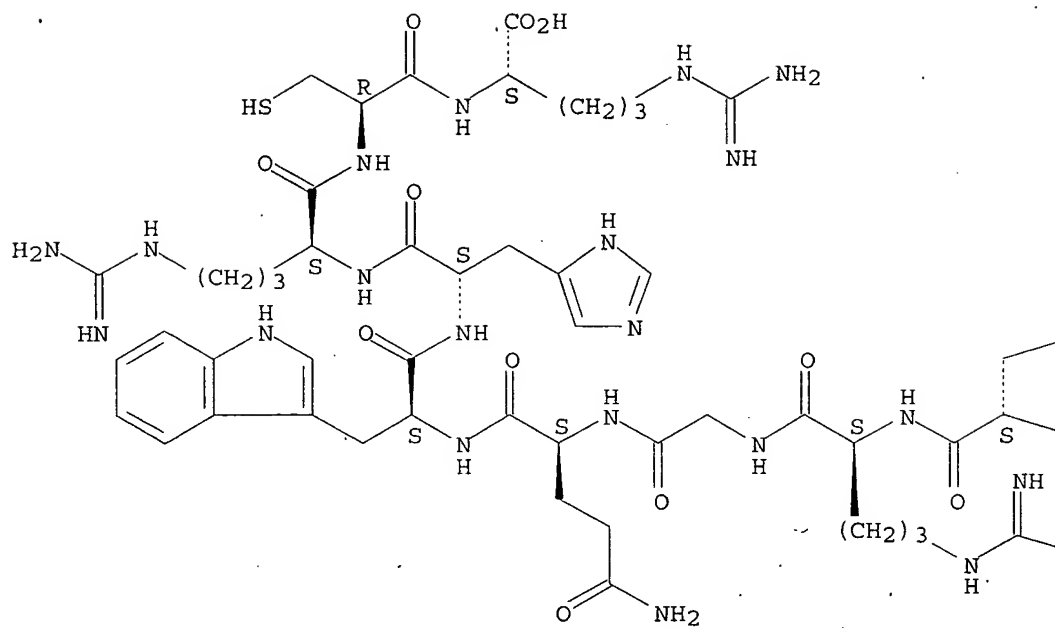


RN 508197-02-2 HCAPLUS

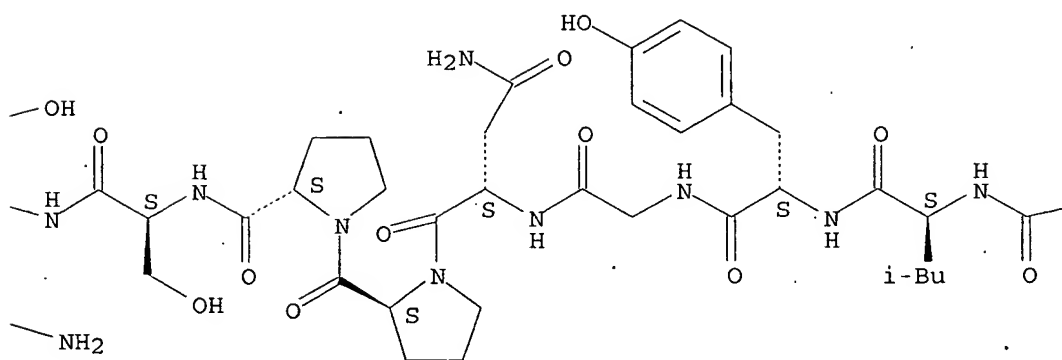
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Absolute stereochemistry.

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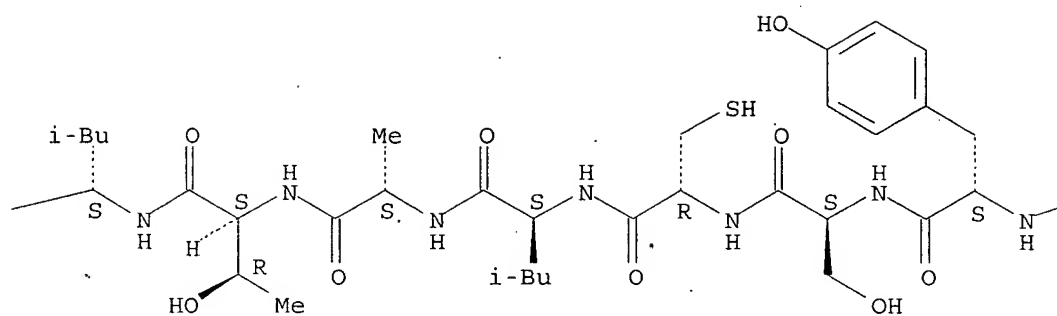


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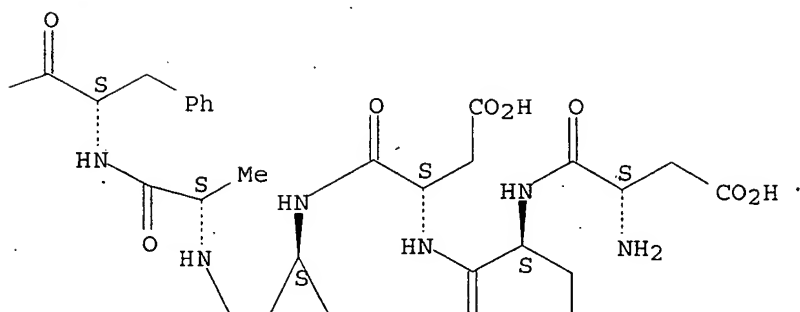




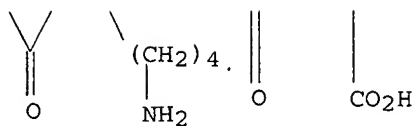
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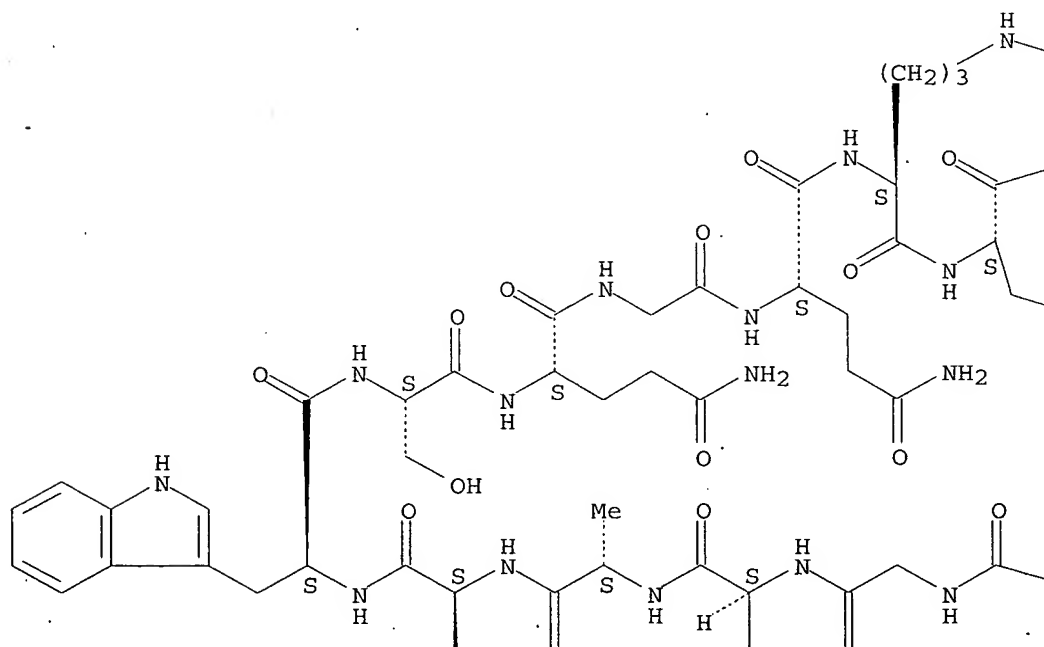


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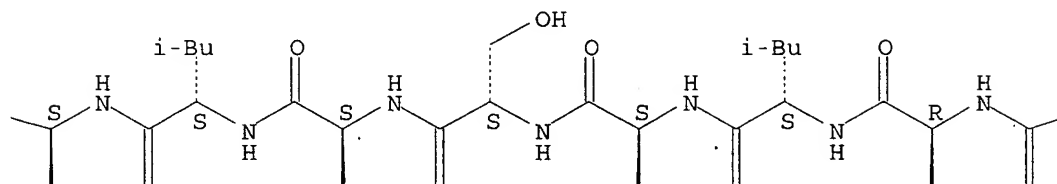
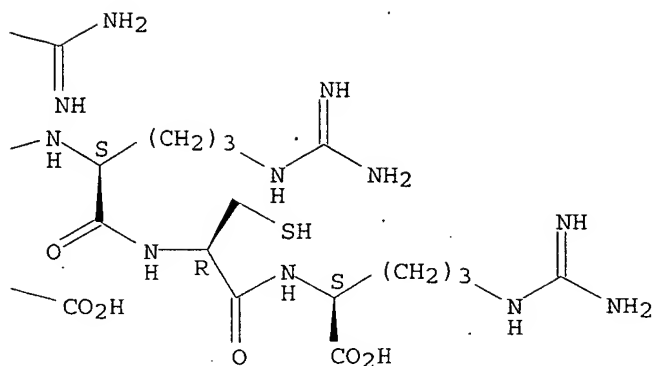
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Absolute stereochemistry.

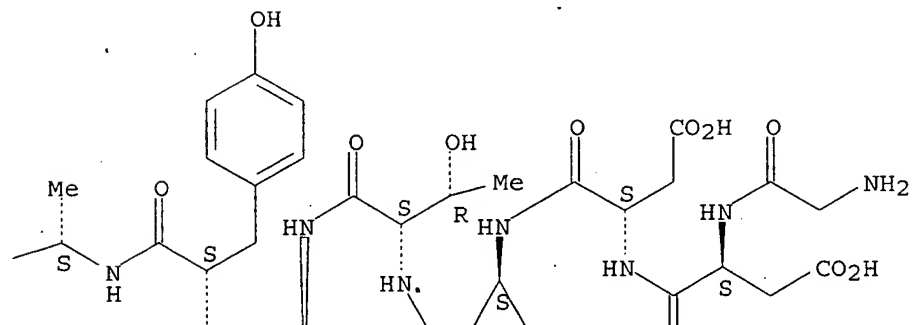
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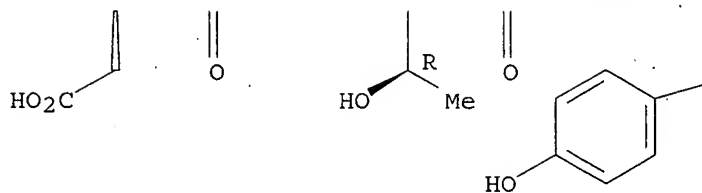
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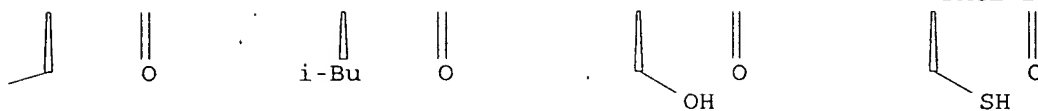
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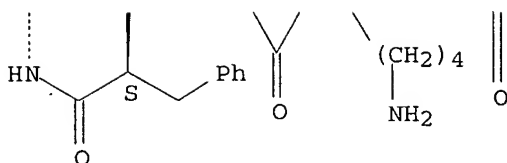
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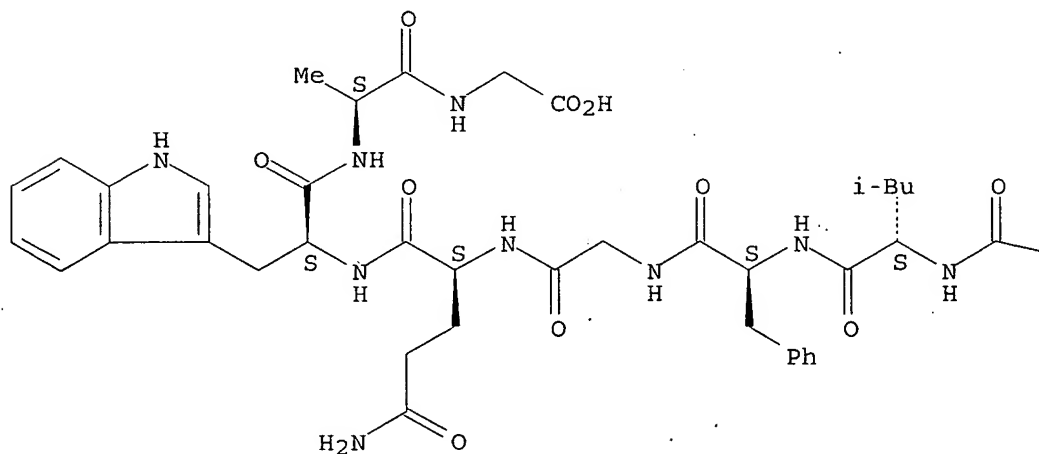


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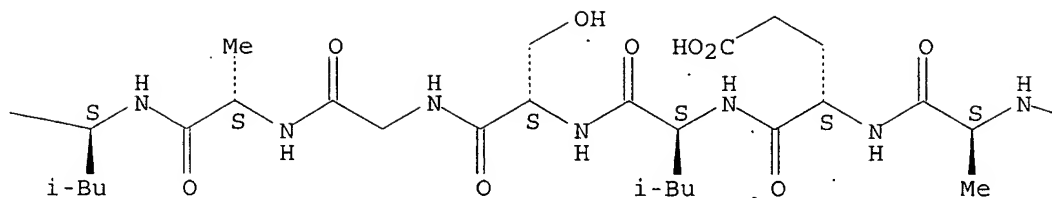
CN Glycine, L-histidyl-L-leucyl-L-seryl-L-valyl-L-leucyl-L-alanyl-L- $\alpha$ -glutamyl-L-leucyl-L-serylglycyl-L-alanyl-L-leucyl-L-leucyl-L-phenylalanylglycyl-L-glutamyl-L-tryptophyl-L-alanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

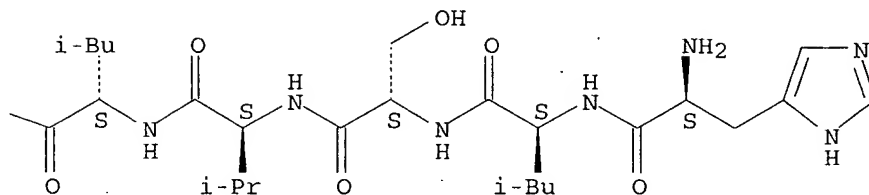
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REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:678826 HCAPLUS

DOCUMENT NUMBER: 139:224449

TITLE: Insulin and IGF-1 receptor peptide agonists and antagonists, and therapeutic use

INVENTOR(S): Pillutla, Renuka; Brissette, Renee; Blume, Arthur J.; Schaffer, Lauge; Brandt, Jakob; Goldstein, Neil I.; Spetzler, Jane; Ostergaard, Soren

PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.; DGI Biotechnologies

SOURCE: PCT Int. Appl., 328 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003070747	A2	20030828	WO 2002-US30312	20020924
WO 2003070747	A3	20041111		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,

PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, US, UZ, VN, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
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US 2003195147 A1 20031016 US 2001-962756 20010924  
 US 6875741 B2 20050405  
 CA 2460055 AA 20030828 CA 2002-2460055 20020924  
 EP 1496935 A2 20050119 EP 2002-806867 20020924

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PRIORITY APPLN. INFO.:

US 2001-962756 A2 20010924  
 US 1998-146127 B2 19980902  
 US 2000-538038 A2 20000329  
 WO 2002-US30312 W 20020924

OTHER SOURCE(S): MARPAT 139:224449

AB Peptide sequences capable of binding to insulin and/or insulin-like growth factor receptors with either agonist or antagonist activity and identified from various peptide libraries are disclosed. The invention also identifies at least two different binding sites which are present on insulin and insulin-like growth factor receptors, and which selectively bind the peptides of this invention. As agonists, certain of the peptides of this invention may be useful for development as therapeutics to supplement or replace endogenous peptide hormones. The antagonists may also be developed as therapeutics for e.g. treatment of diabetes.

IT 365229-31-8P 365229-50-1P 365261-25-2P  
 506430-78-0P 506430-80-4P 506430-81-5P  
 506430-82-6P 506430-83-7P 508197-02-2P  
 508197-03-3P

RL: BPN (Biosynthetic preparation); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

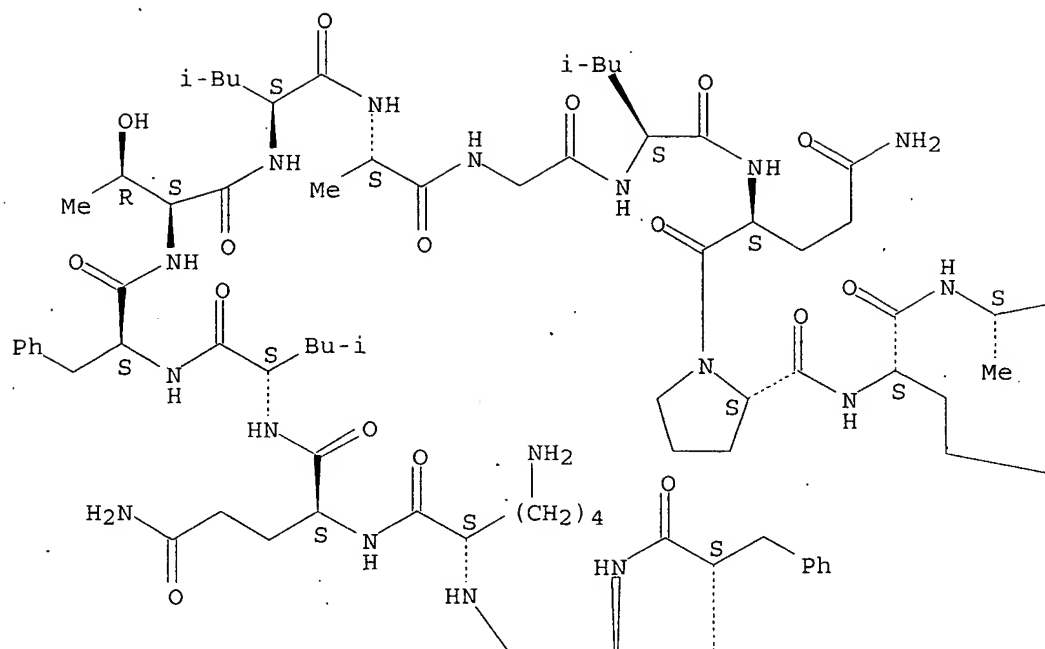
(peptides from various peptide libraries, their dimers and fusion proteins as modulators of insulin and IGF-1 receptors)

RN 365229-31-8 HCAPLUS

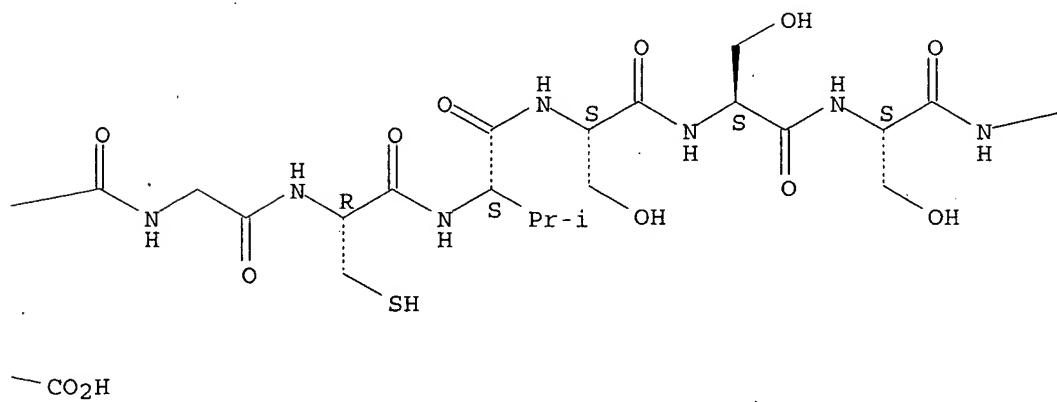
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Absolute stereochemistry.

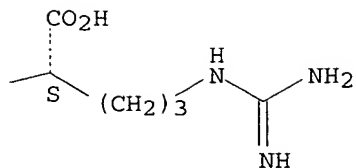
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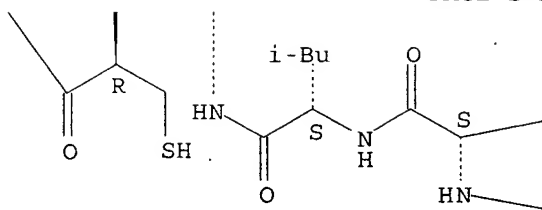
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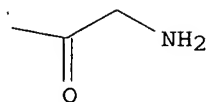


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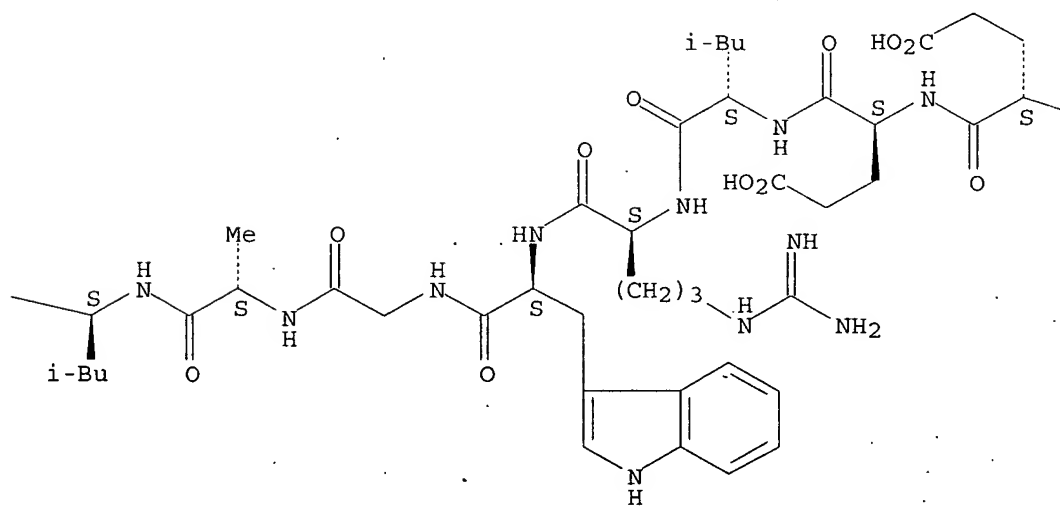
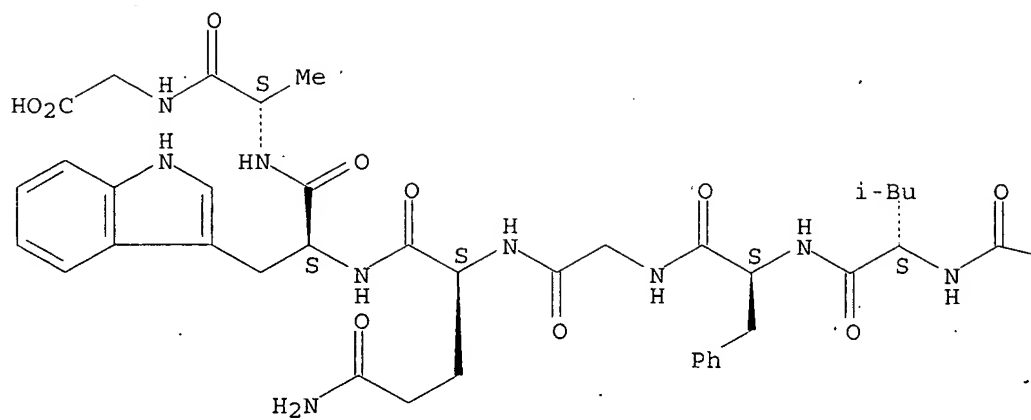
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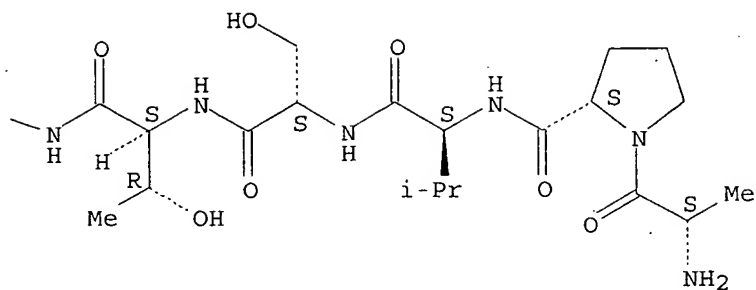
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Absolute stereochemistry.





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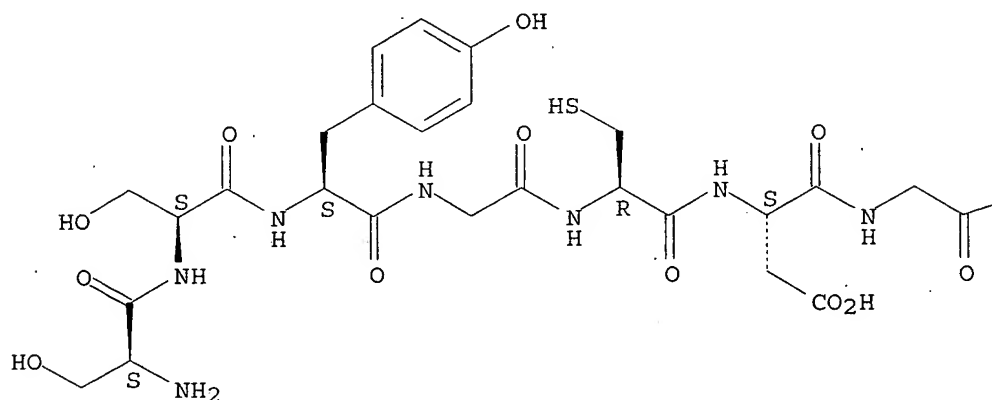


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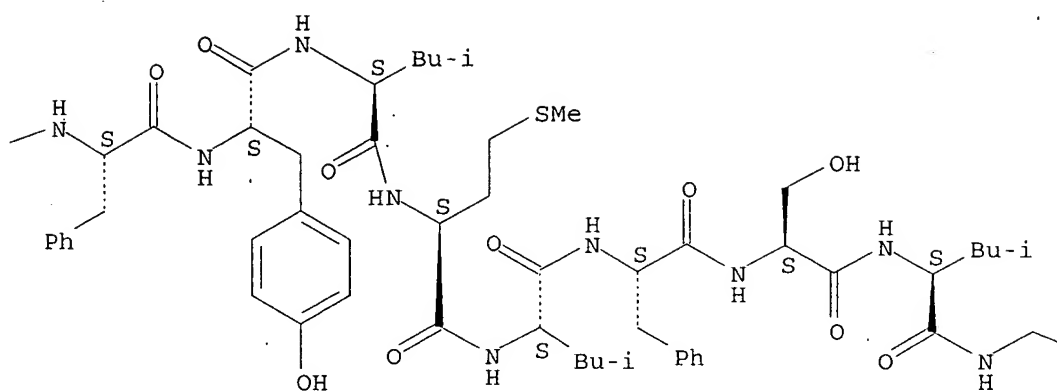
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 aspartylglycyl-L-phenylalanyl-L-tyrosyl-L-leucyl-L-methionyl-L-leucyl-L-  
 phenylalanyl-L-seryl-L-leucylglycyl-L-leucyl-L-valyl-L-alanyl-L-seryl-L-  
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 INDEX NAME)

Absolute stereochemistry.

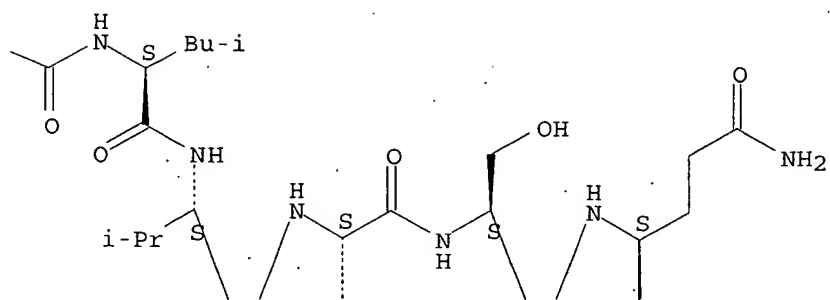
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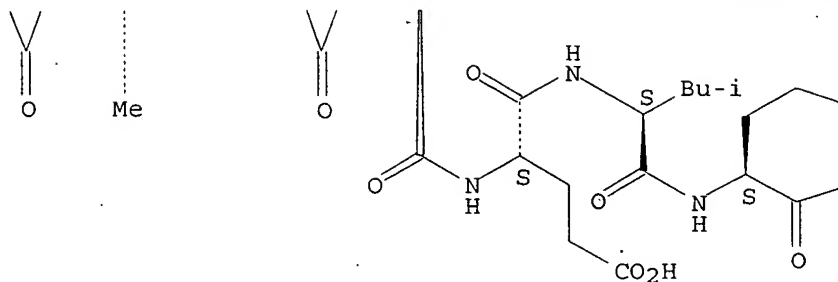
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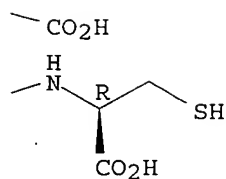
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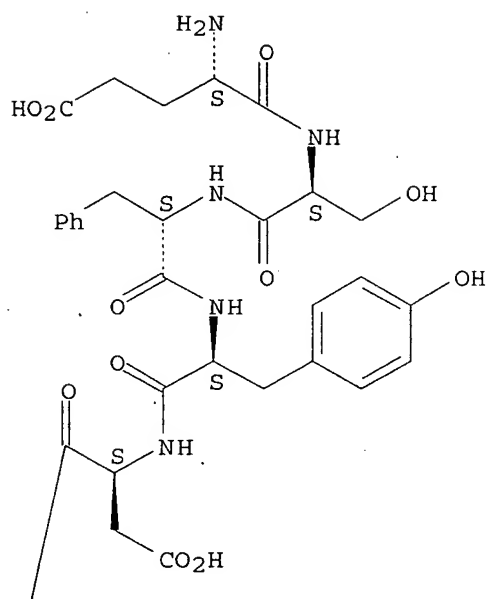


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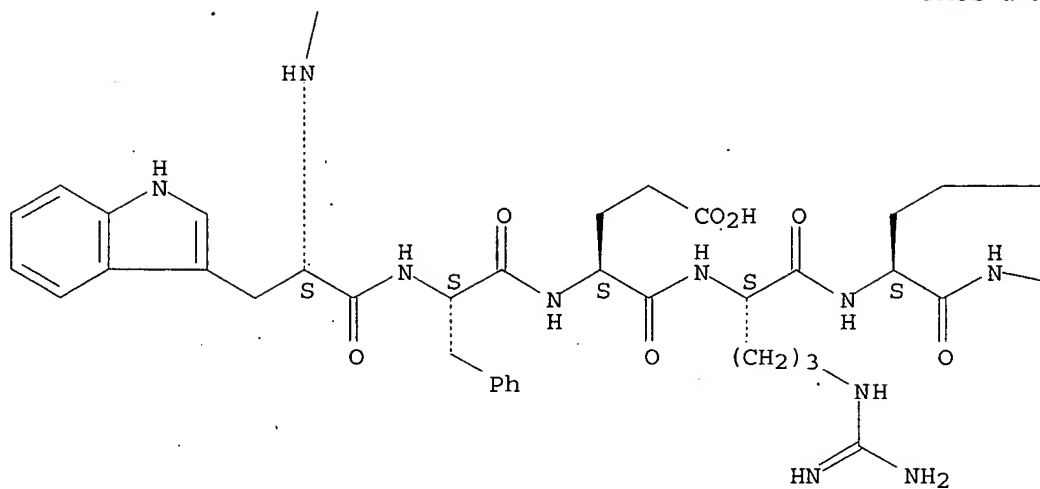
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 glutamyl-L-leucylglycylglycylglycylglycyl-N6-(L-cysteinyl-L- $\alpha$ -  
 glutamyl-L-valyl-L-tyrosylglycyl-L-arginylglycyl-L-cysteinyl-L-prolyl-L-  
 seryl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

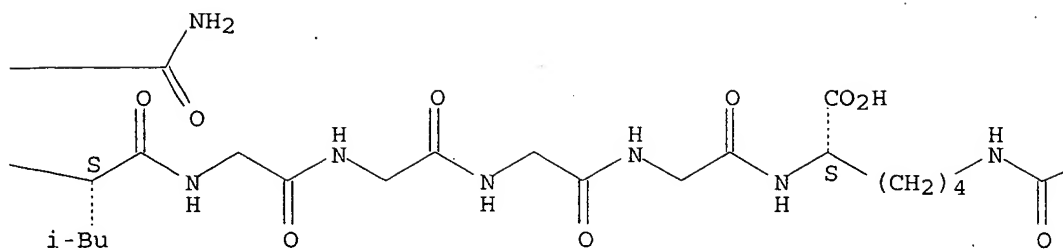
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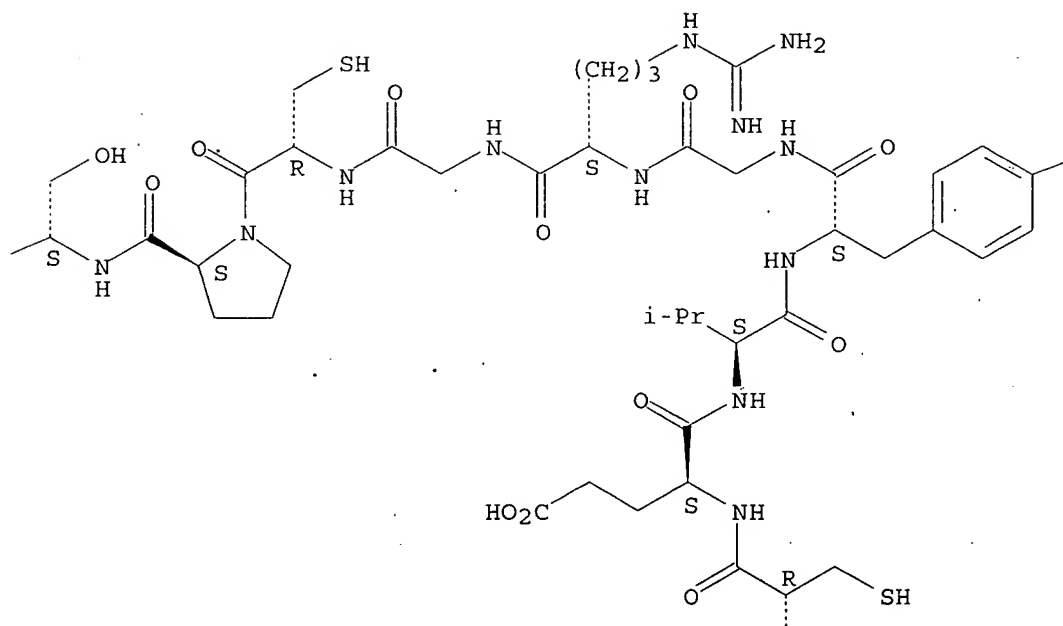
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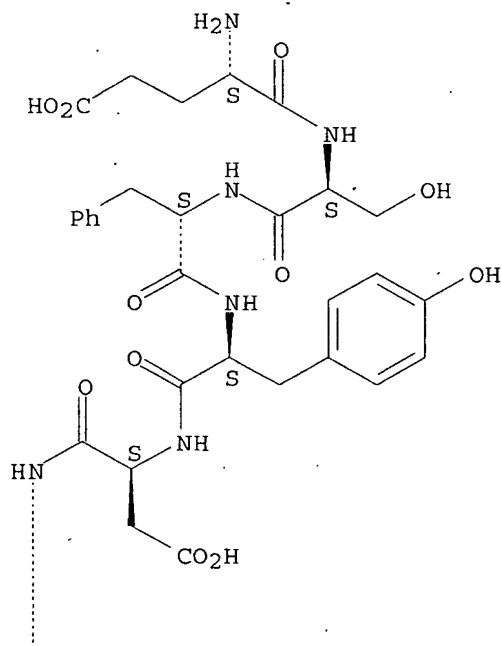
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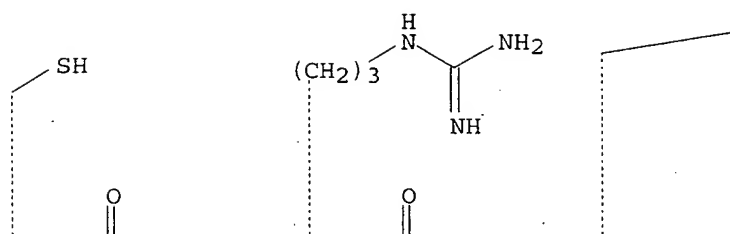
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 aspartyl-L-tryptophyl-L-phenylalanyl-L- $\alpha$ -glutamyl-L-arginyl-L-  
 glutamyl-L-leucylglycylglycylglycylglycyl-N6-(L-alanyl-L-tryptophyl-L-  
 valyl-L-glutamyl-L-cysteinyl-L- $\alpha$ -glutamyl-L-valyl-L-tyrosylglycyl-  
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Absolute stereochemistry.

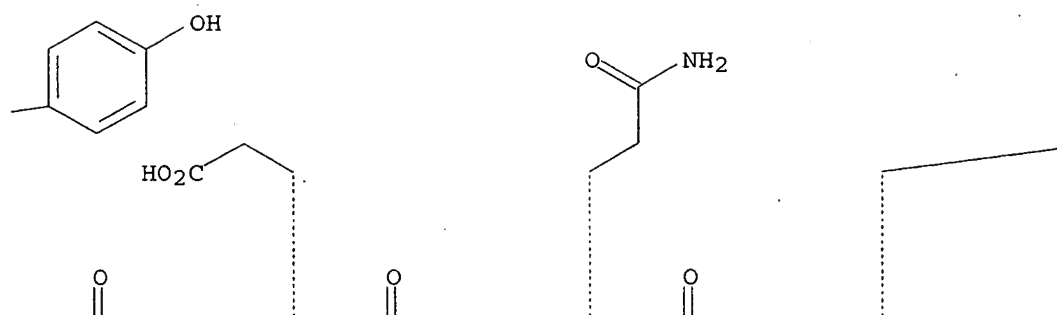
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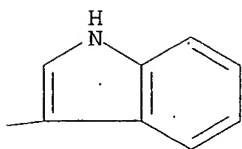


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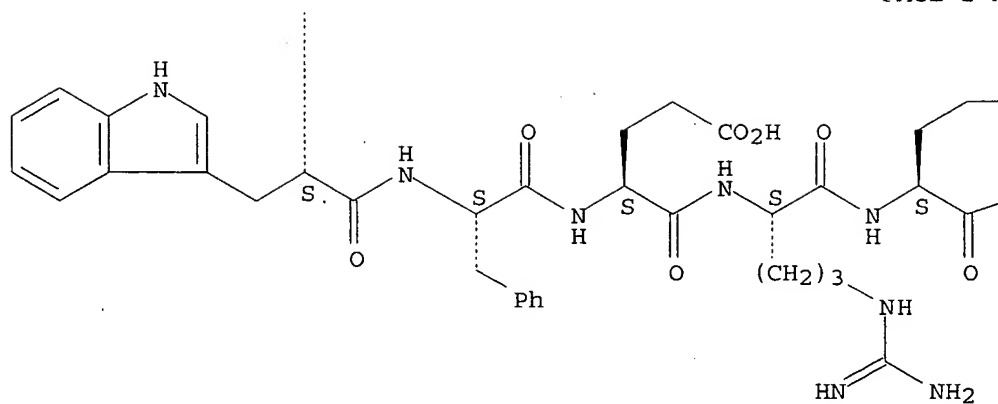




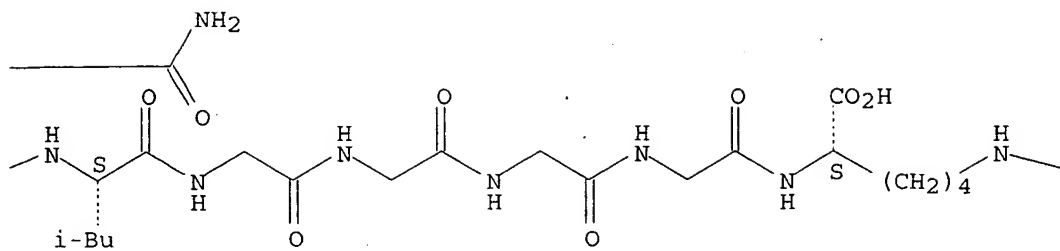
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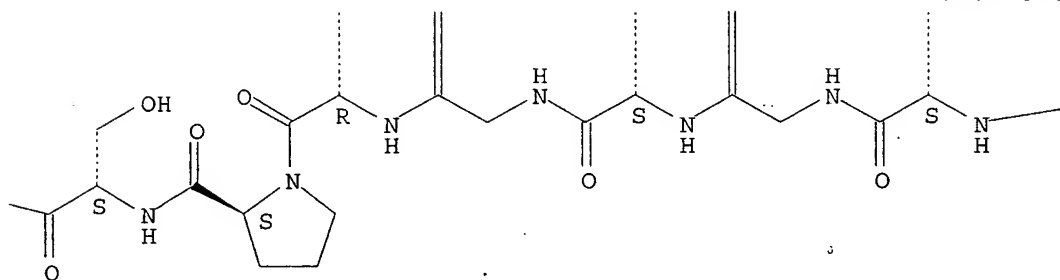
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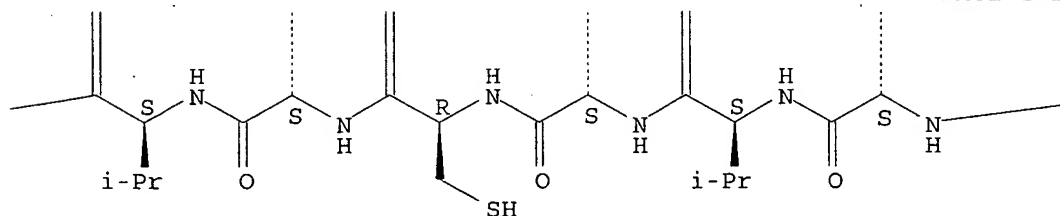
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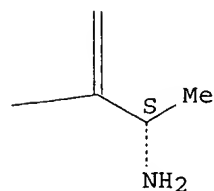
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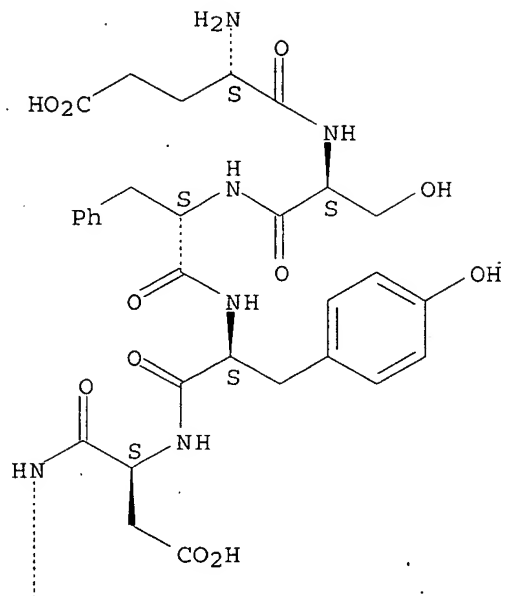


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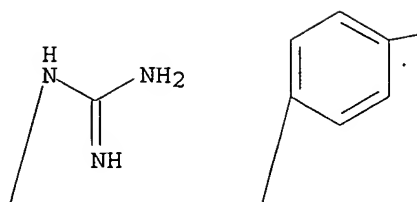
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Absolute stereochemistry.

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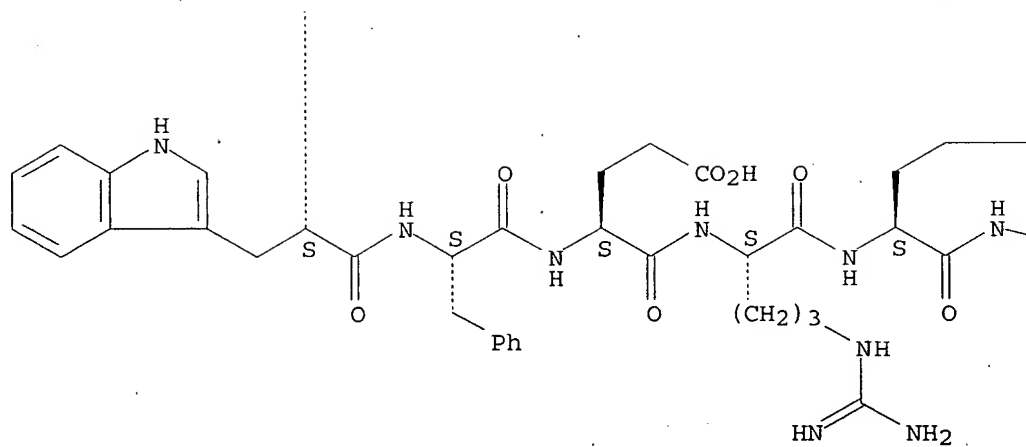
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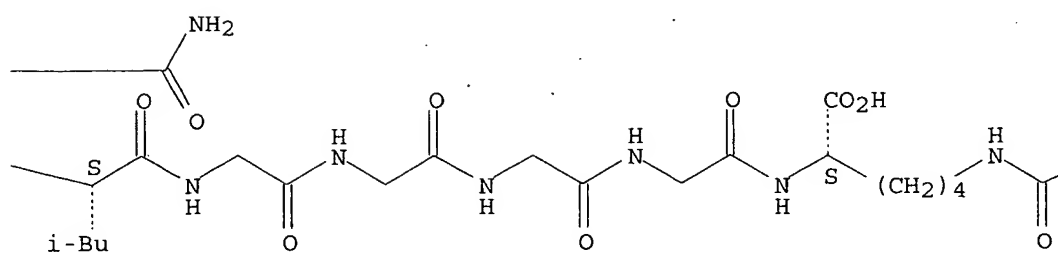
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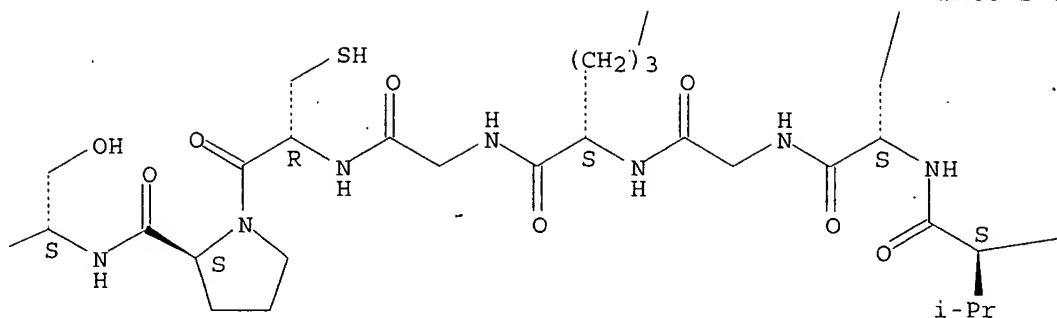
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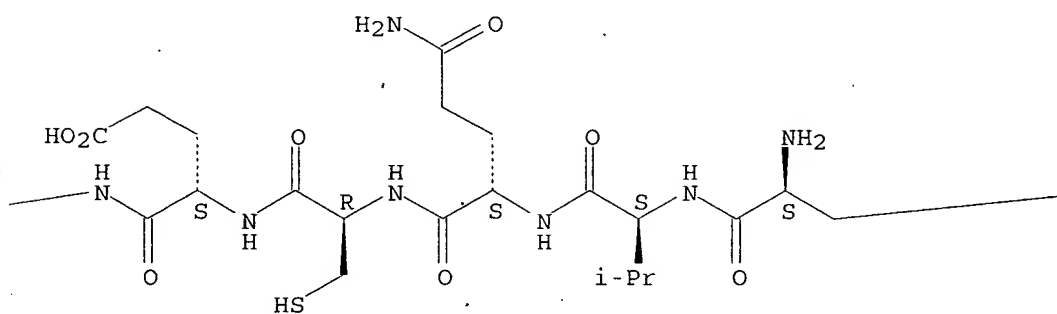
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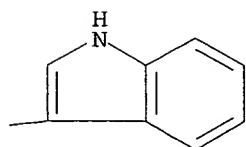
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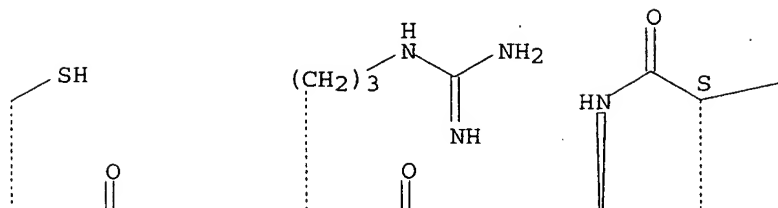
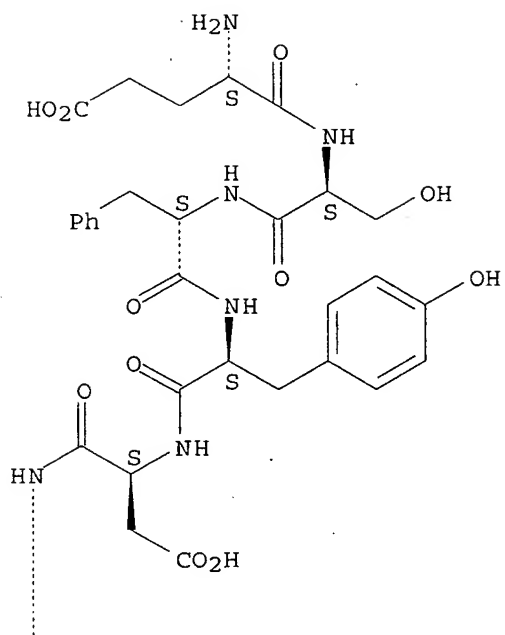
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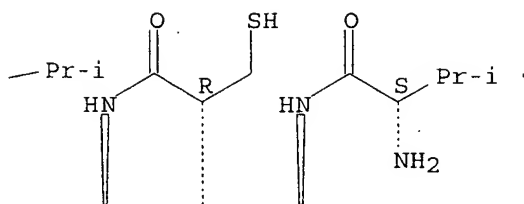
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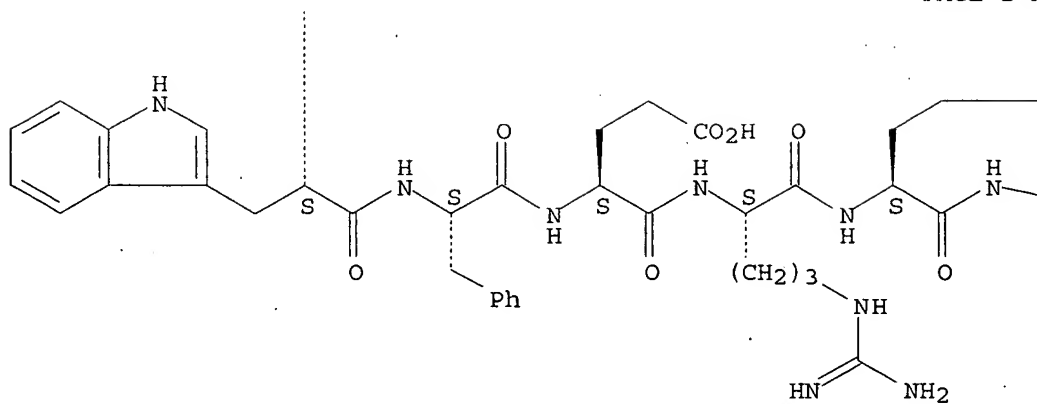
Absolute stereochemistry.



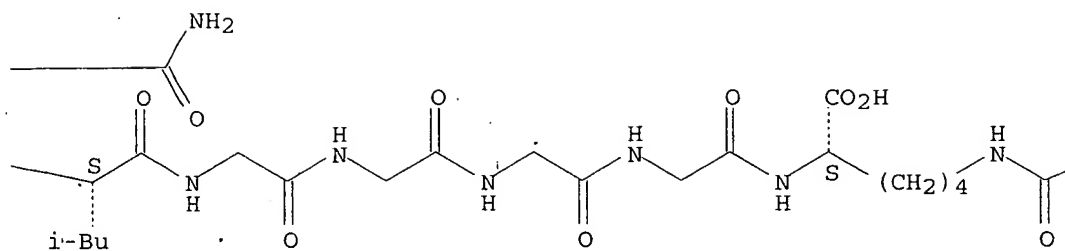
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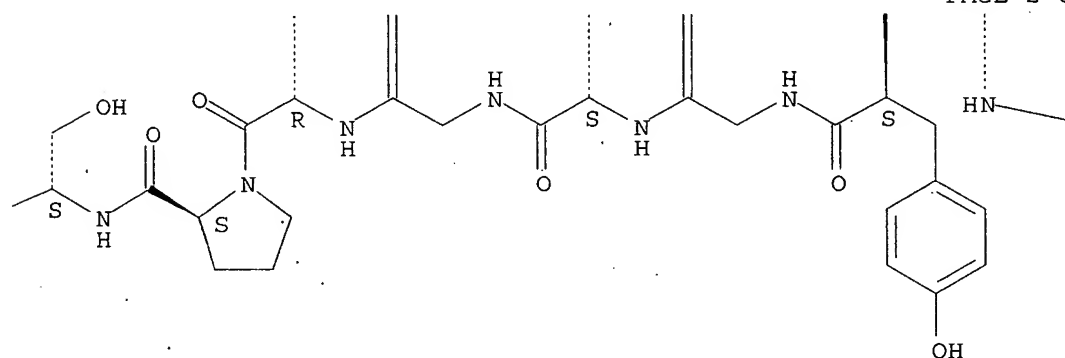
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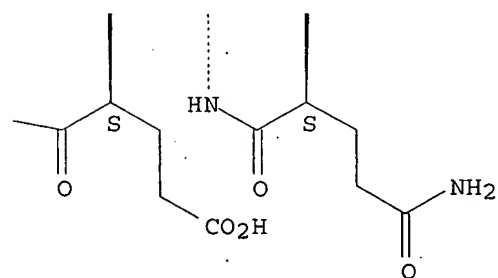
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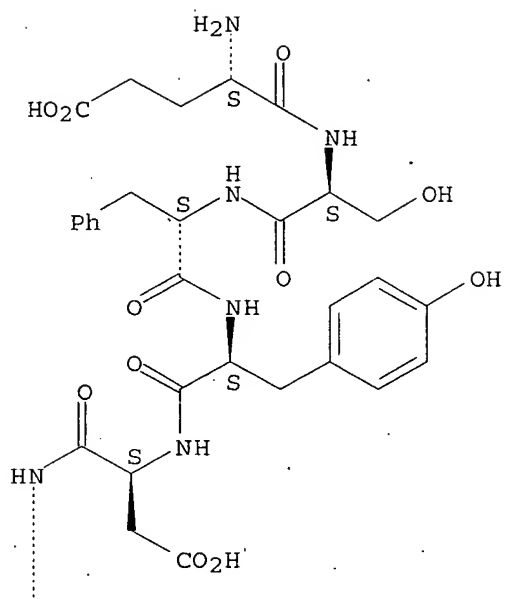
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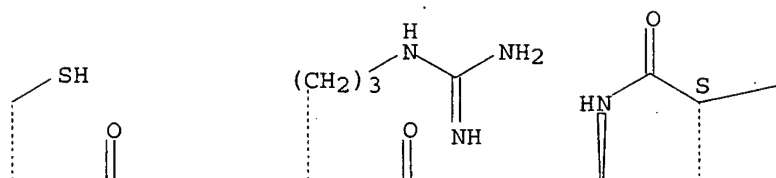
Absolute stereochemistry.

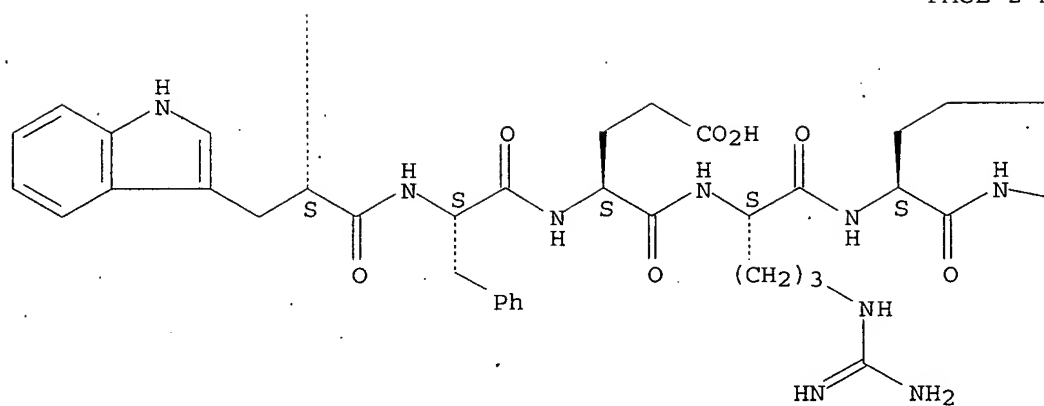
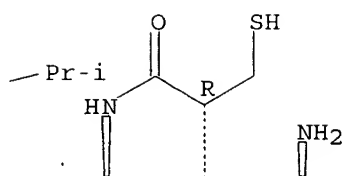


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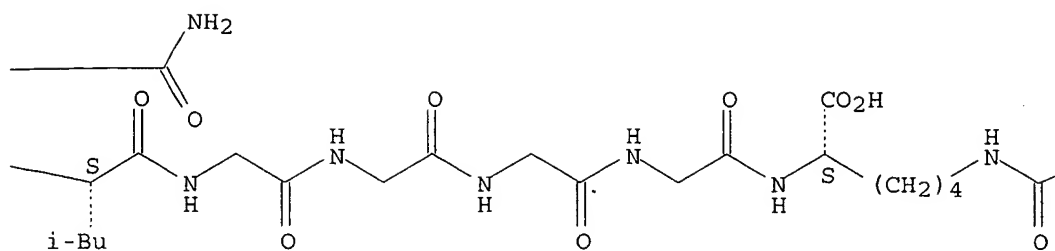


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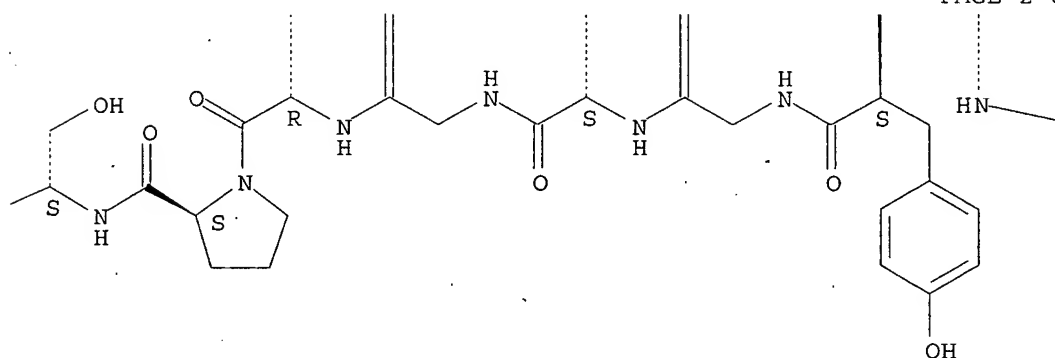




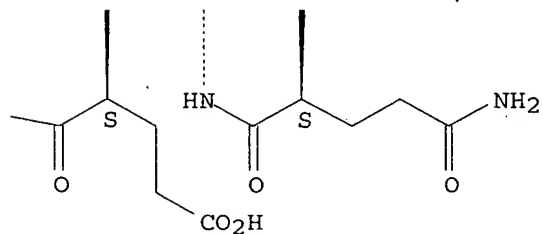
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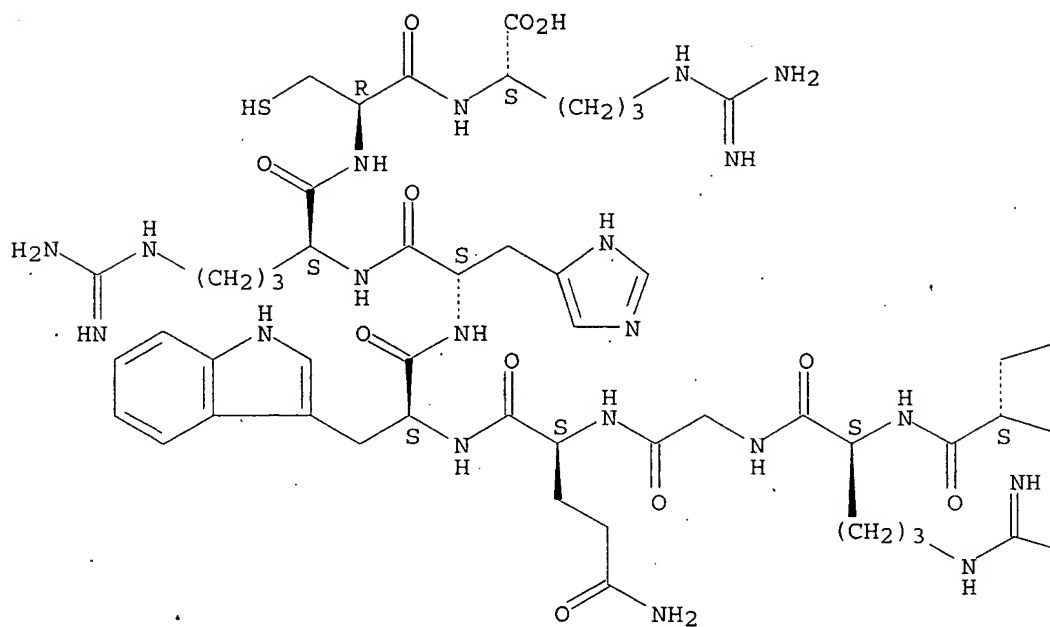


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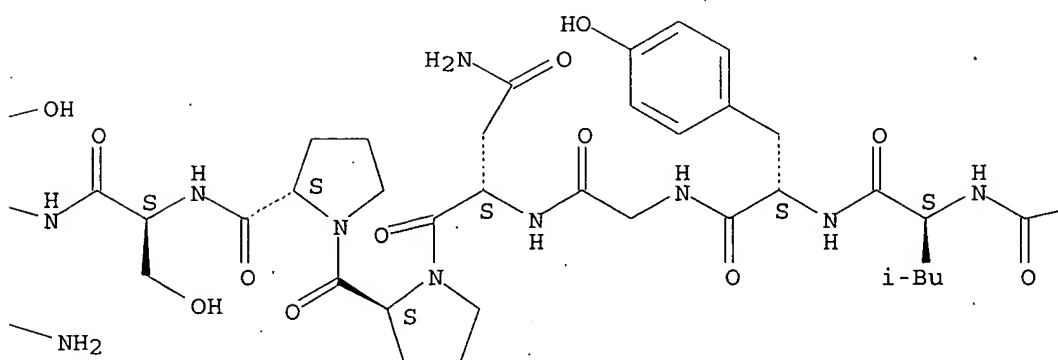
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Absolute stereochemistry.

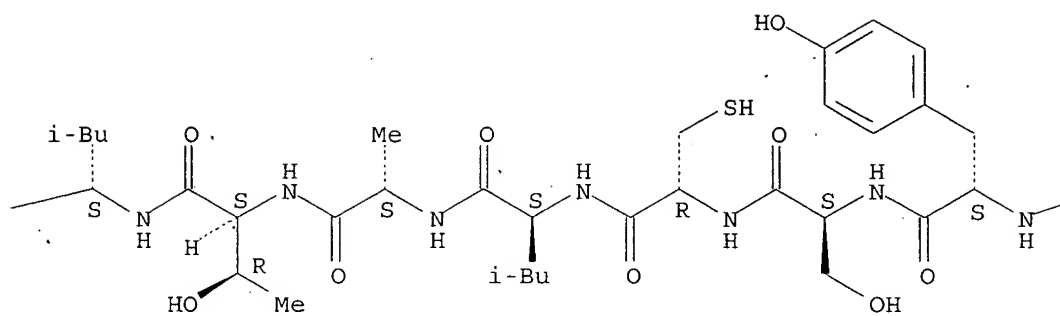
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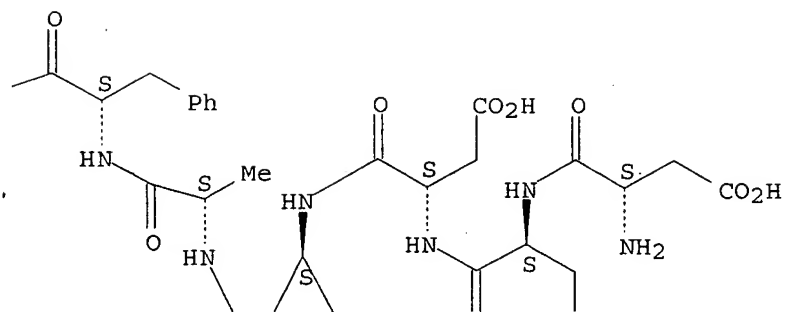
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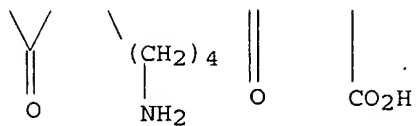


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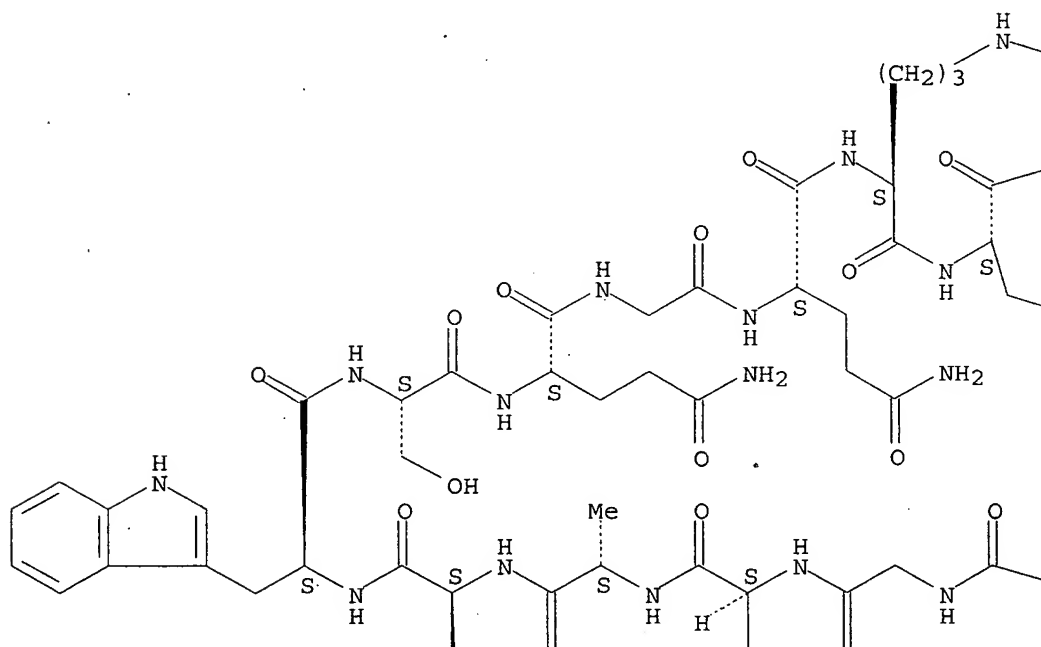




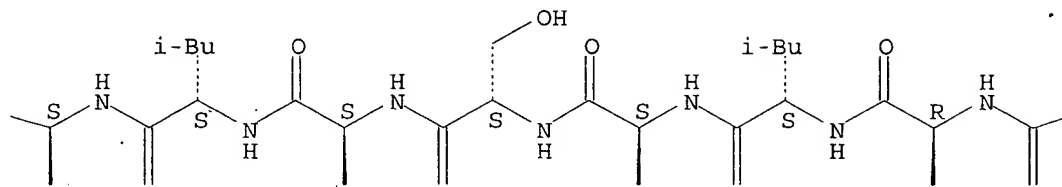
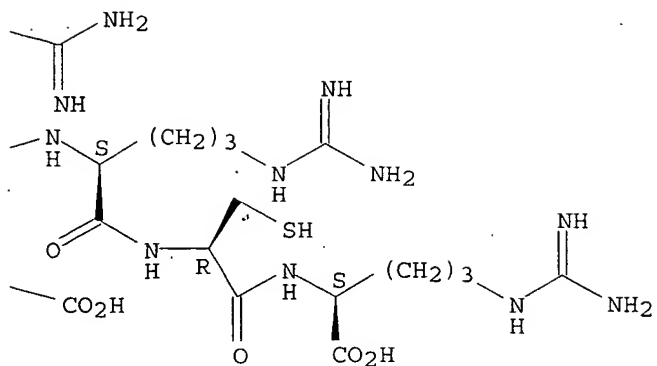
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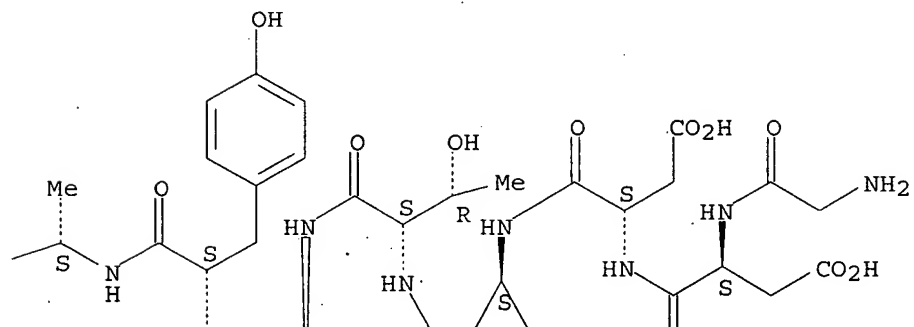
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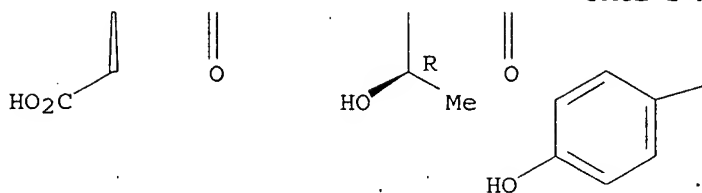
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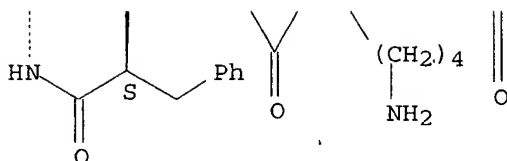
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L20 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:261946 HCAPLUS

DOCUMENT NUMBER: 138:297608

TITLE: Peptides from various peptide libraries, their dimers and fusion proteins as modulators of insulin and IGF-1 receptors

INVENTOR(S): Pillutla, Renuka; Dedova, Olga; Blume, Arthur J.; Goldstein, Neil I.; Brissette, Renee; Wang, Pinger; Liu, Hao; Hsiao, Ku-Chuan; Lennick, Michael; Fletcher, Paul

PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.; DGI Biotechnologies

SOURCE: PCT Int. Appl., 372 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003027246	A2	20030403	WO 2002-US30412	20020924
WO 2003027246	A3	20030731		

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003195147 A1 20031016 US 2001-962756 20010924

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EP 1432433 A2 20040630 EP 2002-775987 20020924

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PRIORITY APPLN. INFO.:

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US 2000-538038 A2 20000329

WO 2002-US30412 W 20020924

AB Peptide sequences capable of binding to insulin and/or insulin-like growth factor receptors with either agonist or antagonist activity and identified from various peptide libraries are disclosed. This invention also identifies at least two different binding sites, which are present on insulin and insulin-like growth factor receptors, and which selectively bind the peptides of this invention. As agonists, the peptides of this invention may be useful for development as therapeutics to supplement or replace endogenous peptide hormones. The antagonist peptides may also be developed as therapeutics. Dimers and fusion proteins are also disclosed as insulin and IGF-I receptor modulators.

IT 365229-31-8P 365229-50-1P 365261-25-2P

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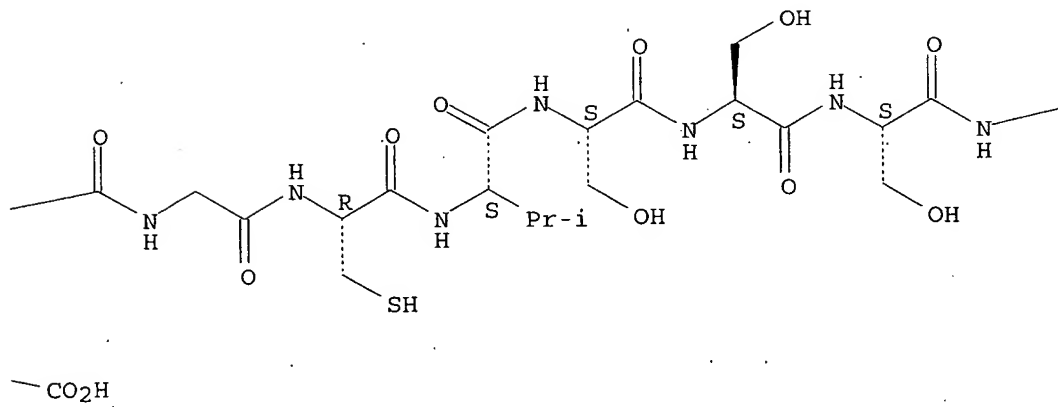
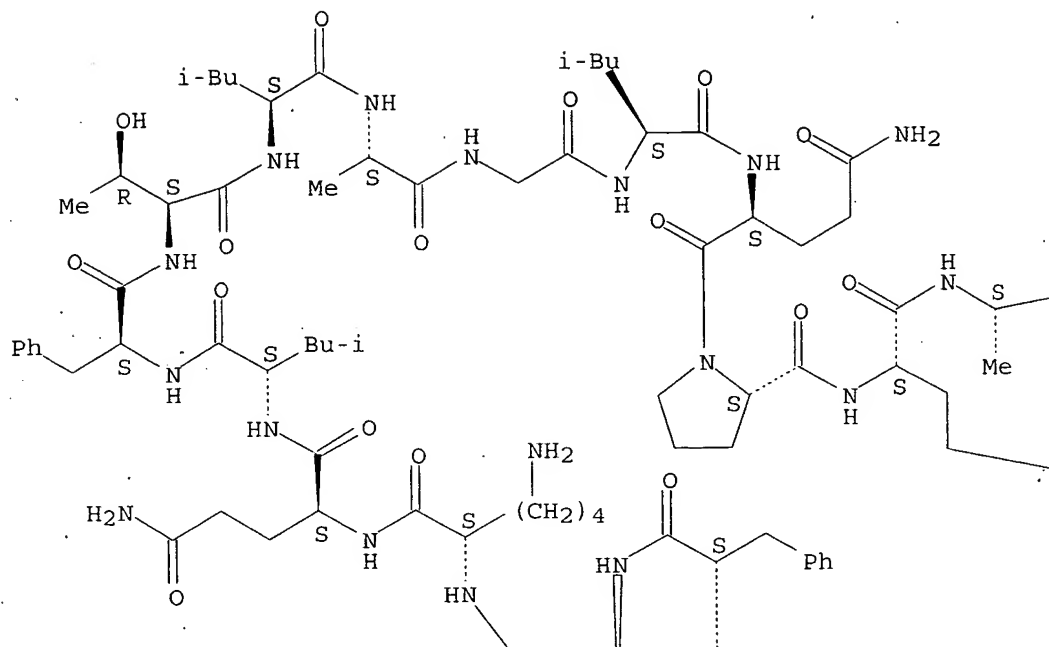
RL: BPN (Biosynthetic preparation); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(peptides from various peptide libraries, their dimers and fusion proteins as modulators of insulin and IGF-1 receptors)

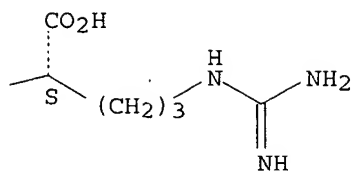
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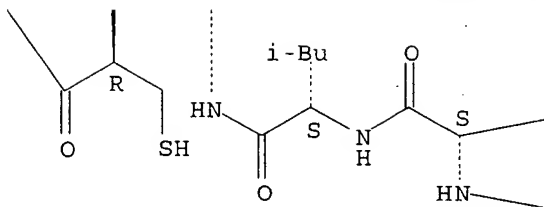
Absolute stereochemistry.



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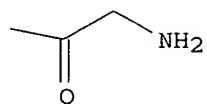


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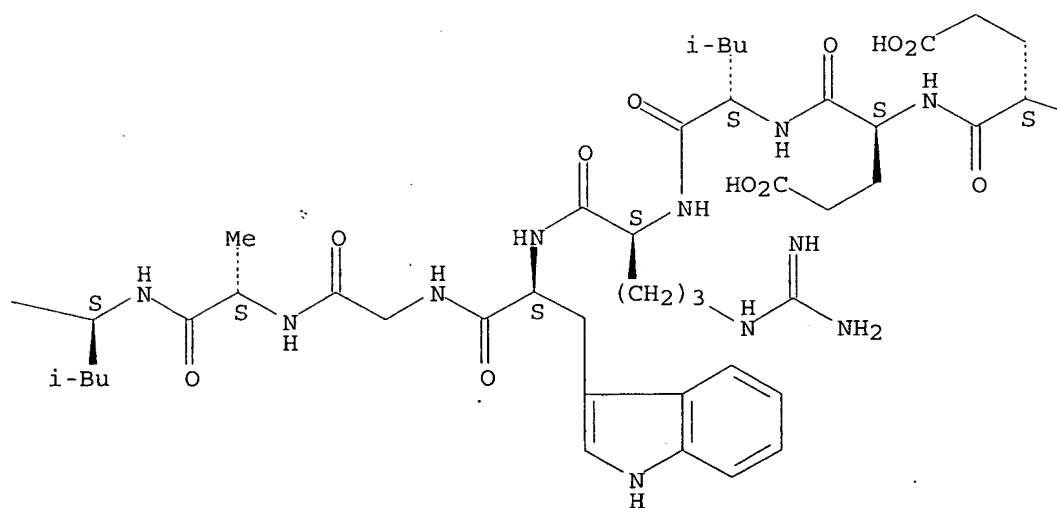
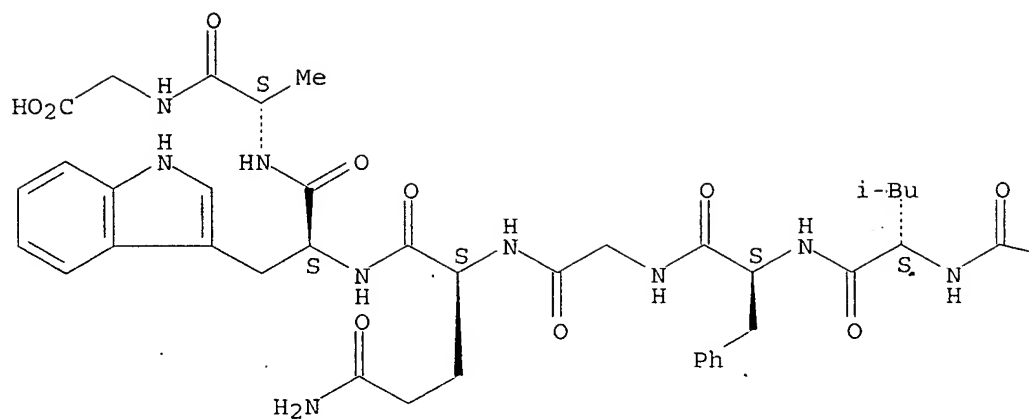
Bu-i

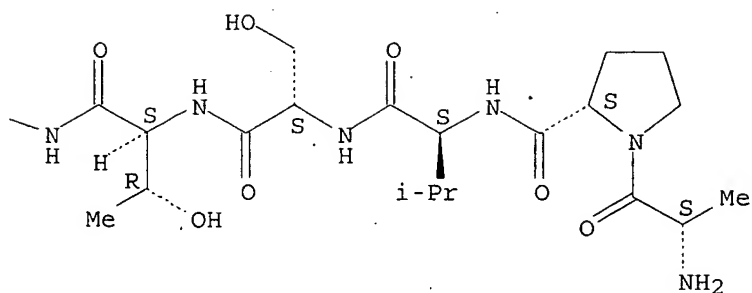


RN 365229-50-1 HCAPLUS

CN Glycine, L-alanyl-L-prolyl-L-valyl-L-seryl-L-threonyl-L- $\alpha$ -glutamyl-L- $\alpha$ -glutamyl-L-leucyl-L-arginyl-L-tryptophylglycyl-L-alanyl-L-leucyl-L-leucyl-L-phenylalanylglycyl-L-glutamyl-L-tryptophyl-L-alanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

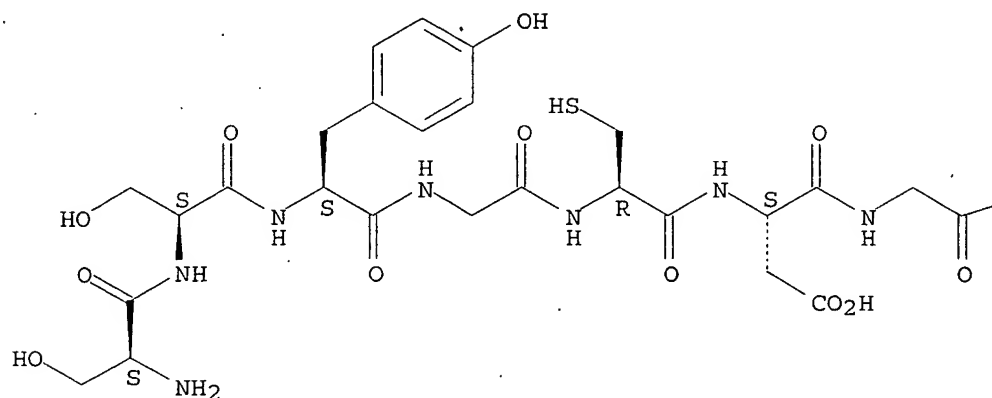


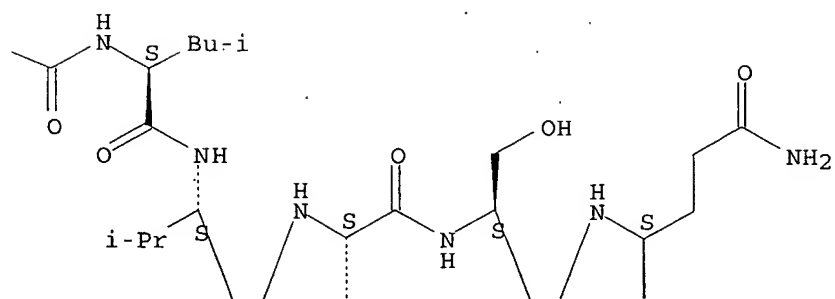
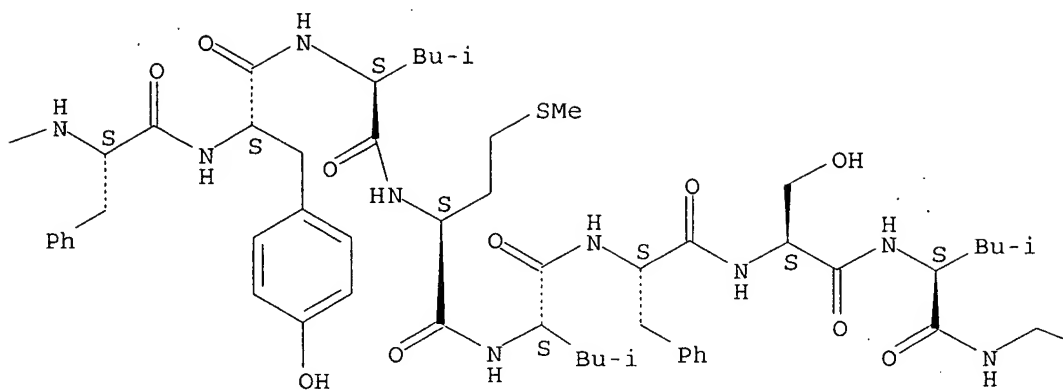


RN 365261-25-2 HCAPLUS

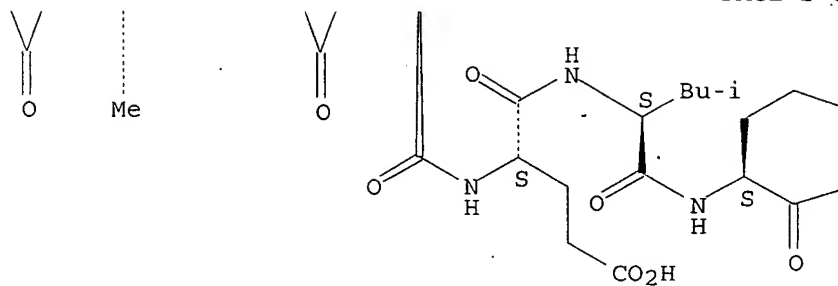
CN L-Cysteine, L-seryl-L-seryl-L-tyrosylglycyl-L-cysteinyl-L- $\alpha$ -  
 aspartylglycyl-L-phenylalanyl-L-tyrosyl-L-leucyl-L-methionyl-L-leucyl-L-  
 phenylalanyl-L-seryl-L-leucylglycyl-L-leucyl-L-valyl-L-alanyl-L-seryl-L-  
 glutaminyl-L- $\alpha$ -glutamyl-L-leucyl-L- $\alpha$ -glutamyl- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry.

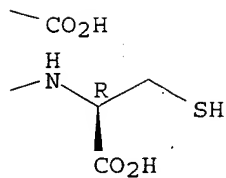




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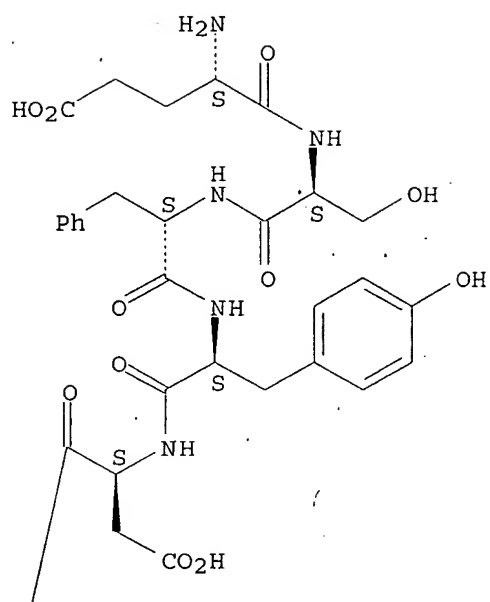


RN 506430-78-0 HCAPLUS

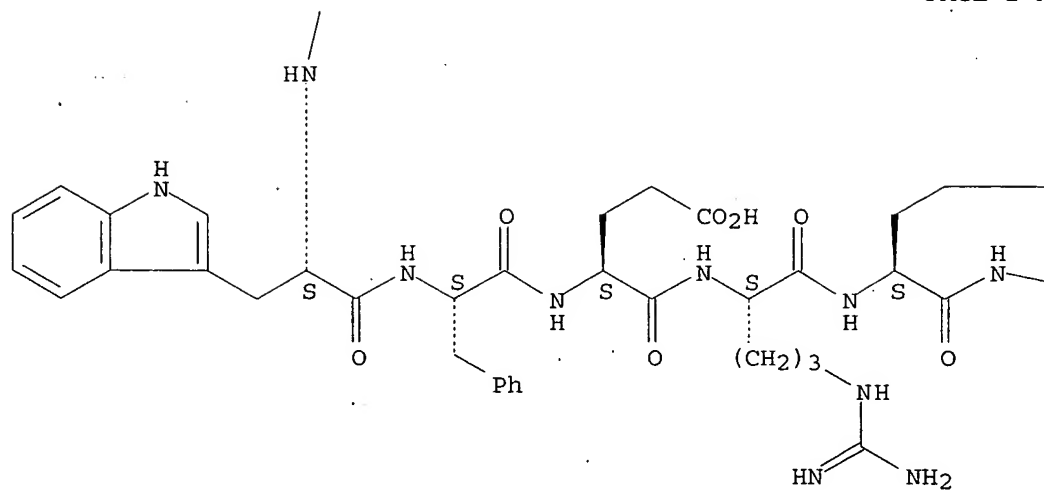
CN L-Lysine, L- $\alpha$ -glutamyl-L-seryl-L-phenylalanyl-L-tyrosyl-L- $\alpha$ -aspartyl-L-tryptophyl-L-phenylalanyl-L- $\alpha$ -glutamyl-L-arginyl-L-glutamyl-L-leucylglycylglycylglycylglycyl-N6-(L-cysteinyl-L- $\alpha$ -glutamyl-L-valyl-L-tyrosylglycyl-L-arginylglycyl-L-cysteinyl-L-prolyl-L-seryl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

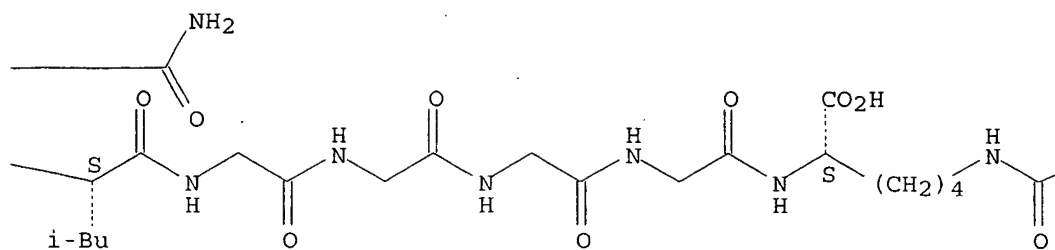


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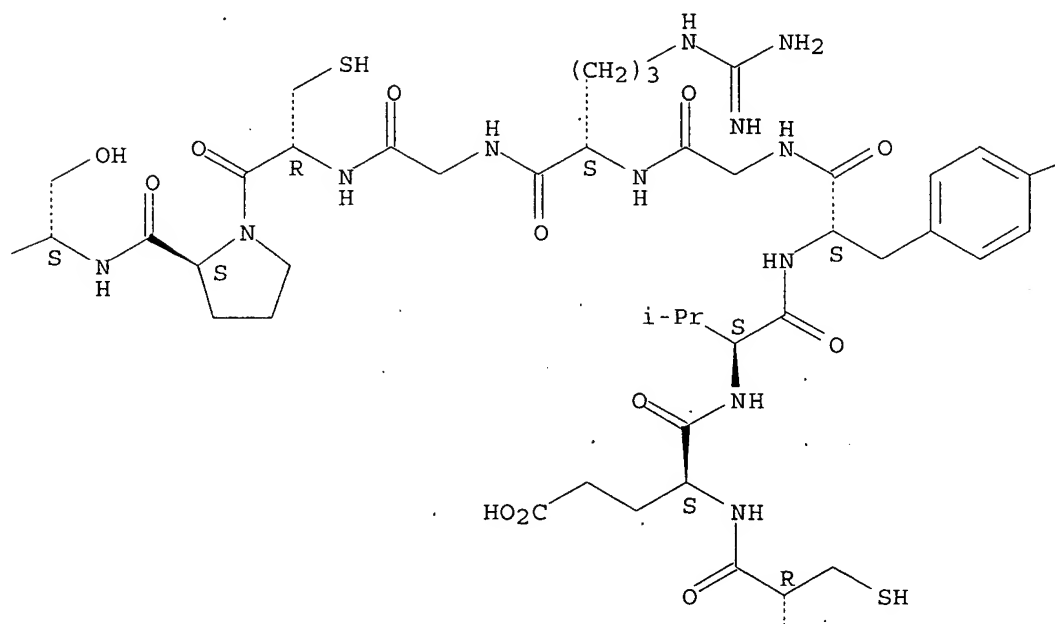




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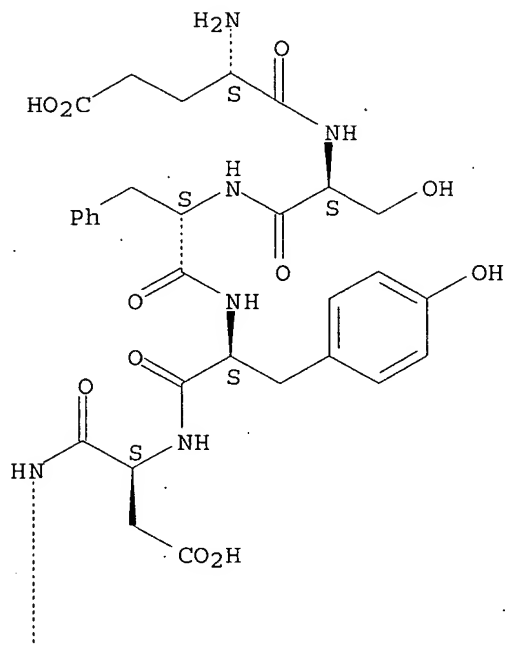


NH<sub>2</sub>

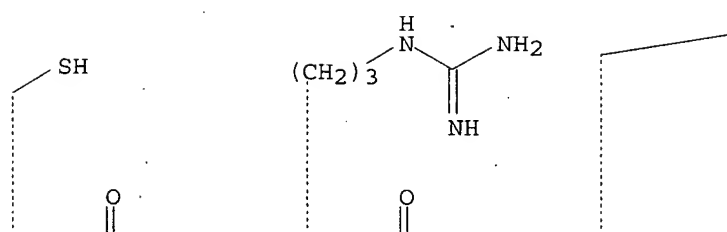
RN 506430-80-4 HCAPLUS  
 CN L-Lysine, L- $\alpha$ -glutamyl-L-seryl-L-phenylalanyl-L-tyrosyl-L- $\alpha$ -  
 aspartyl-L-tryptophyl-L-phenylalanyl-L- $\alpha$ -glutamyl-L-arginyl-L-  
 glutamyl-L-leucylglycylglycylglycylglycyl-N6-(L-alanyl-L-tryptophyl-L-  
 valyl-L-glutamyl-L-cysteinyl-L- $\alpha$ -glutamyl-L-valyl-L-tyrosylglycyl-  
 L-arginylglycyl-L-cysteinyl-L-prolyl-L-seryl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

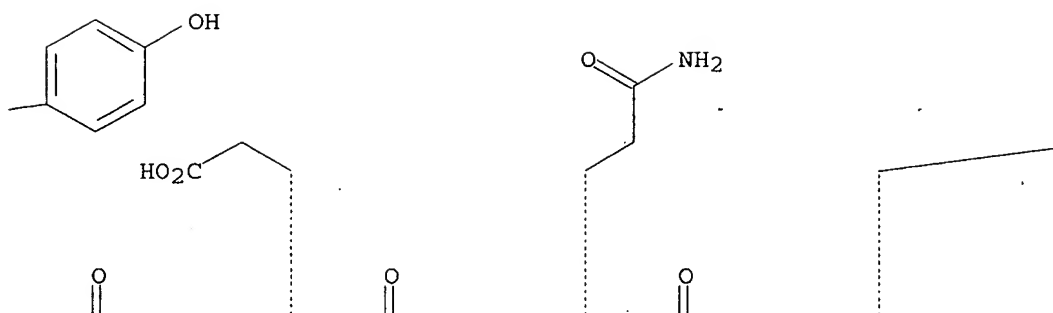
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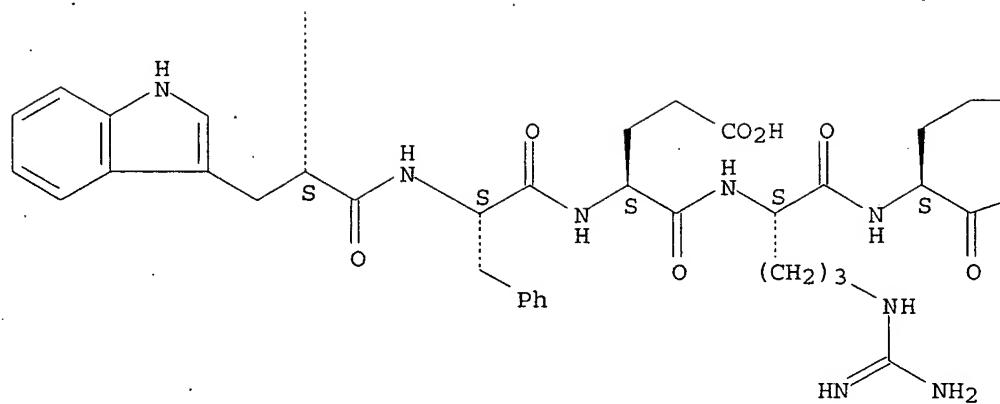
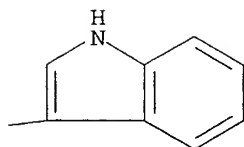


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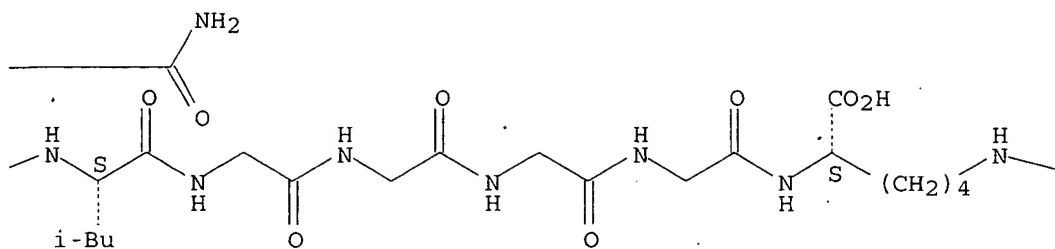


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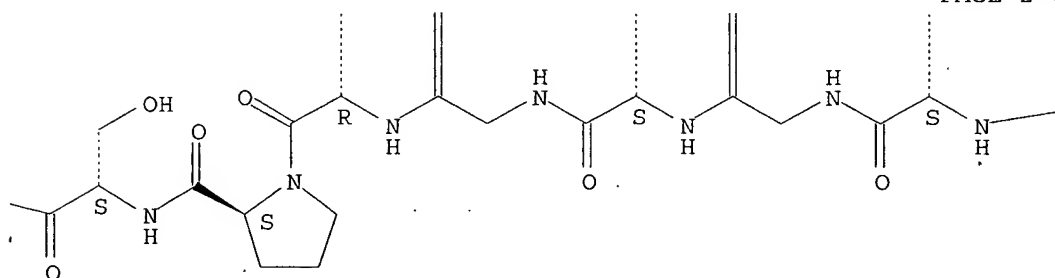




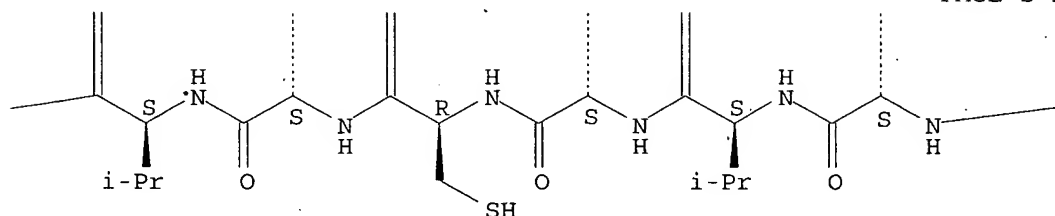
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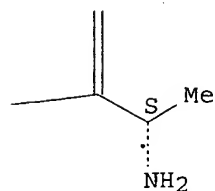
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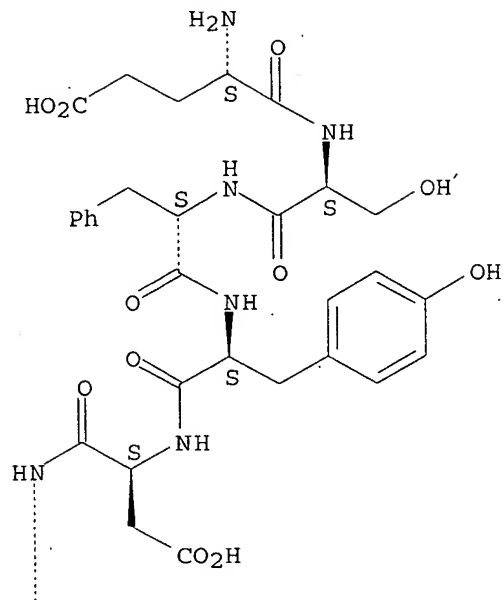
PAGE 2-E



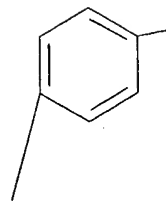
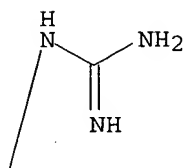
RN 506430-81-5 HCAPLUS  
 CN L-Lysine, L- $\alpha$ -glutamyl-L-seryl-L-phenylalanyl-L-tyrosyl-L- $\alpha$ -aspartyl-L-tryptophyl-L-phenylalanyl-L- $\alpha$ -glutamyl-L-arginyl-L-glutamyl-L-leucylglycylglycylglycylglycyl-N6-(L-tryptophyl-L-valyl-L-glutamyl-L-cysteinyl-L- $\alpha$ -glutamyl-L-valyl-L-tyrosylglycyl-L-arginylglycyl-L-cysteinyl-L-prolyl-L-seryl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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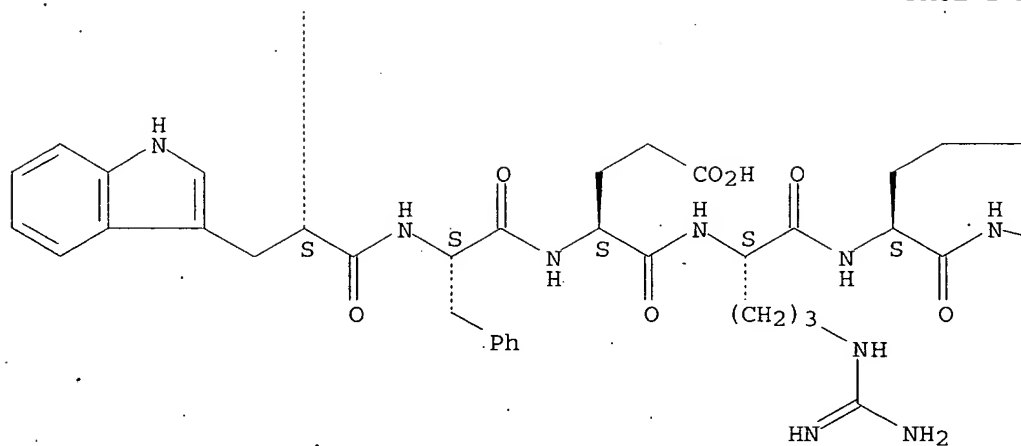
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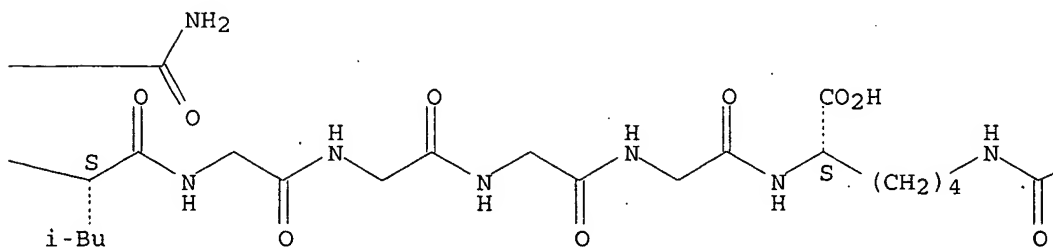
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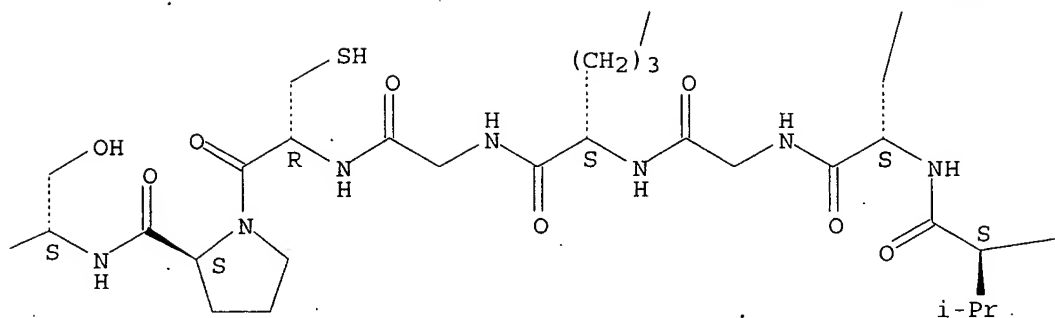
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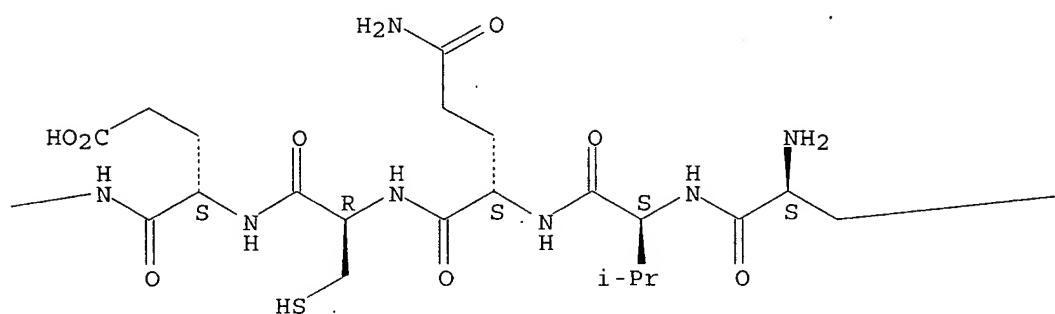
PAGE 2-B



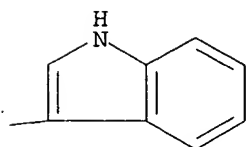
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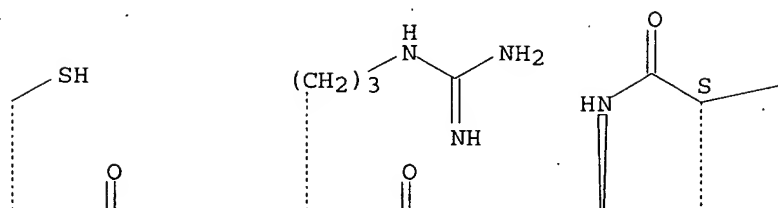
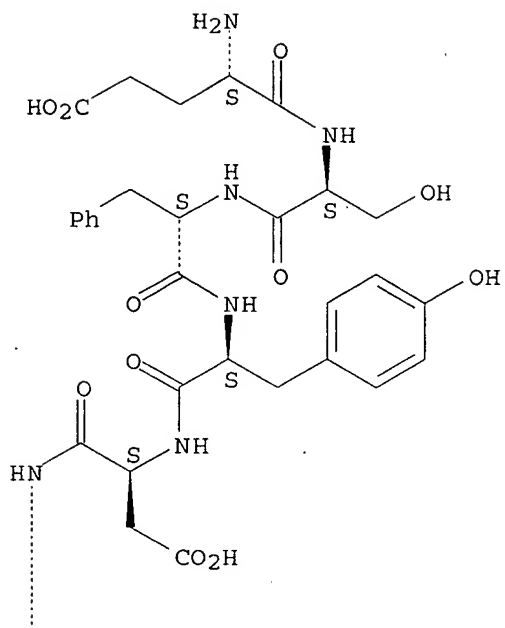


RN 506430-82-6 HCAPLUS

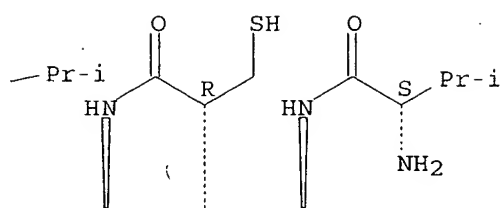
CN L-Lysine, L- $\alpha$ -glutamyl-L-seryl-L-phenylalanyl-L-tyrosyl-L- $\alpha$ -aspartyl-L-tryptophyl-L-phenylalanyl-L- $\alpha$ -glutamyl-L-arginyl-L-glutamyl-L-leucylglycylglycylglycylglycyl-N<sub>6</sub>-(L-valyl-L-glutamyl-L-cysteinyl-L- $\alpha$ -glutamyl-L-valyl-L-tyrosylglycyl-L-arginylglycyl-L-cysteinyl-L-prolyl-L-seryl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

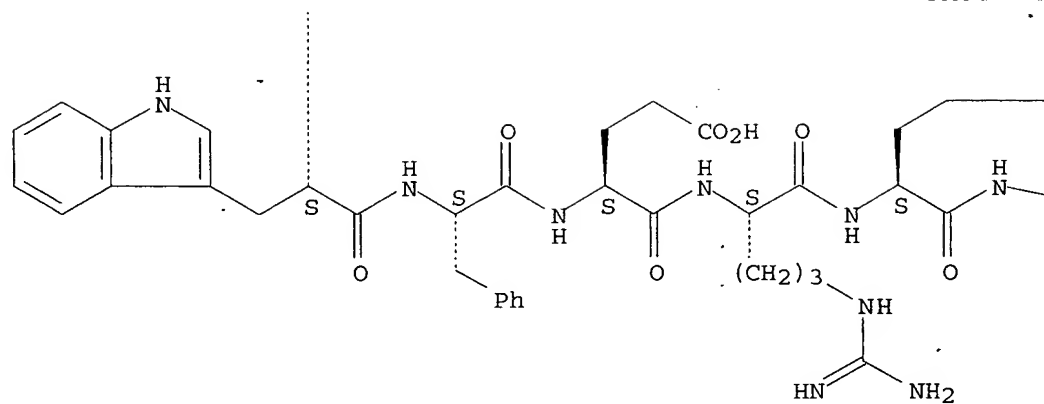




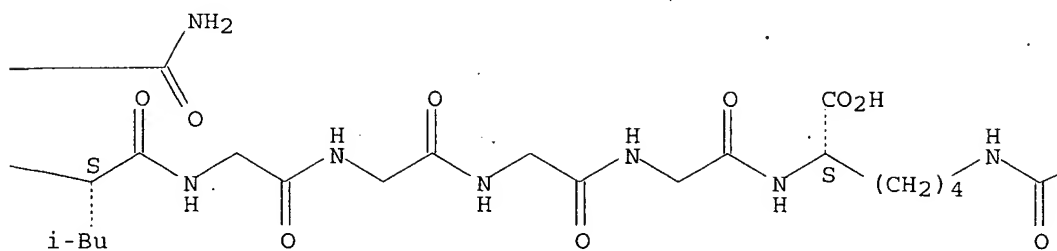
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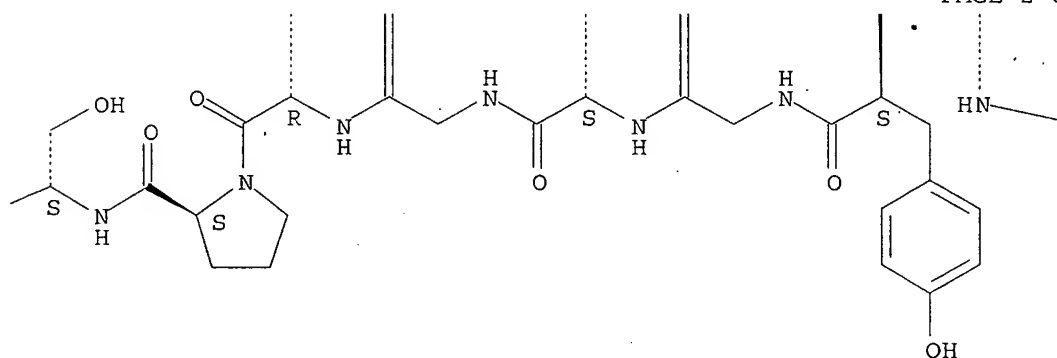
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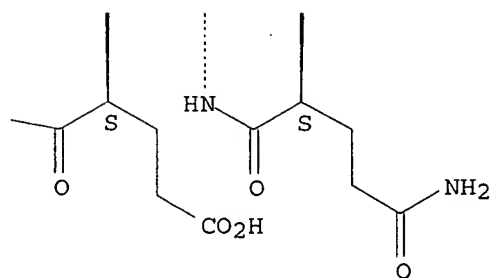
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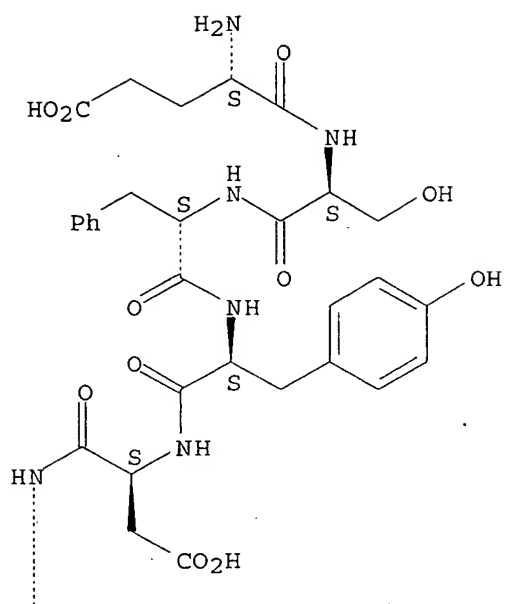


RN 506430-83-7 HCAPLUS

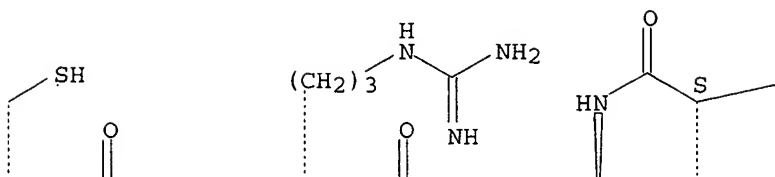
CN L-Lysine, L- $\alpha$ -glutamyl-L-seryl-L-phenylalanyl-L-tyrosyl-L- $\alpha$ -aspartyl-L-tryptophyl-L-phenylalanyl-L- $\alpha$ -glutamyl-L-arginyl-L-glutamyl-L-leucylglycylglycylglycylglycyl-N6-(L-glutamyl-L-cysteinyl-L- $\alpha$ -glutamyl-L-valyl-L-tyrosylglycyl-L-arginylglycyl-L-cysteinyl-L-prolyl-L-seryl)- (9CI) (CA INDEX NAME)

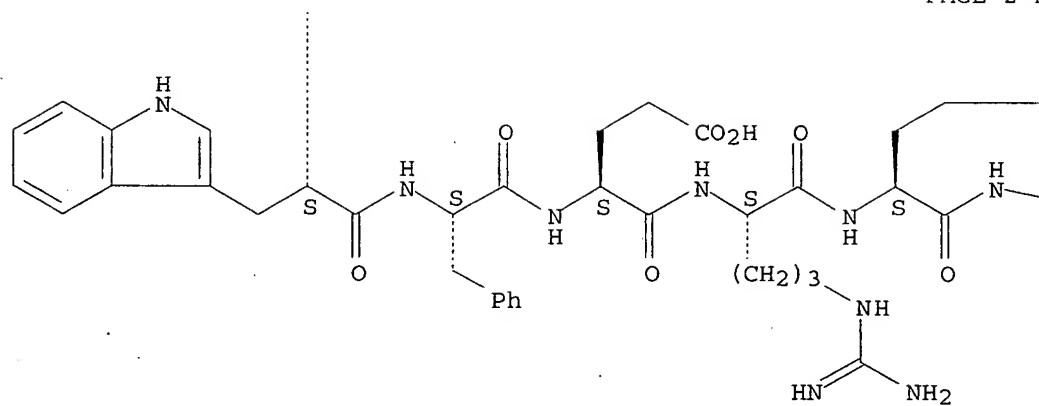
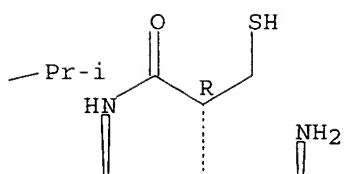
Absolute stereochemistry.

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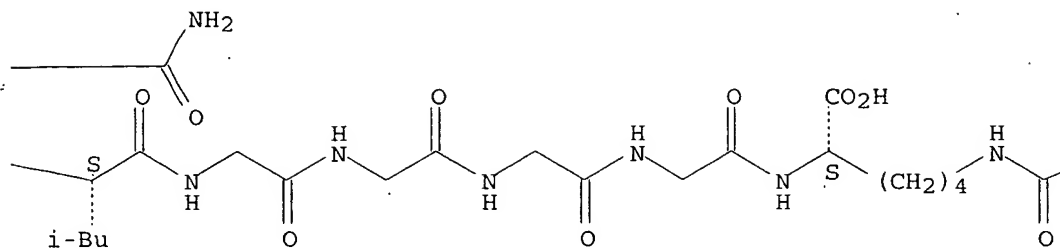


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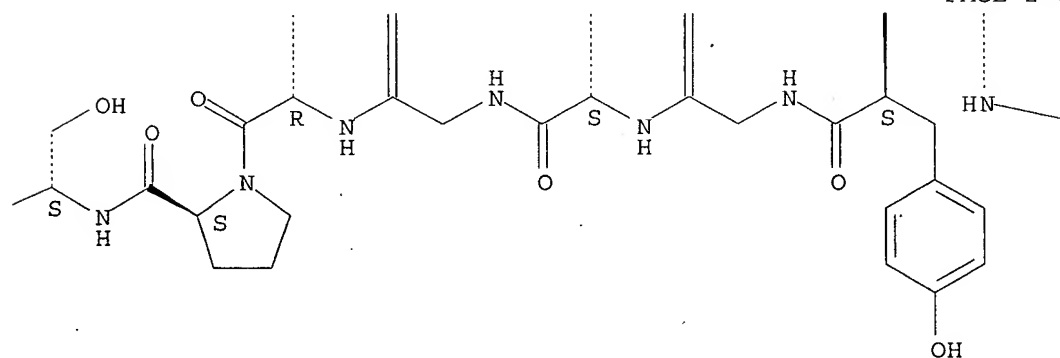




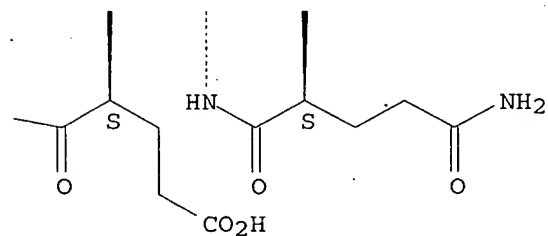
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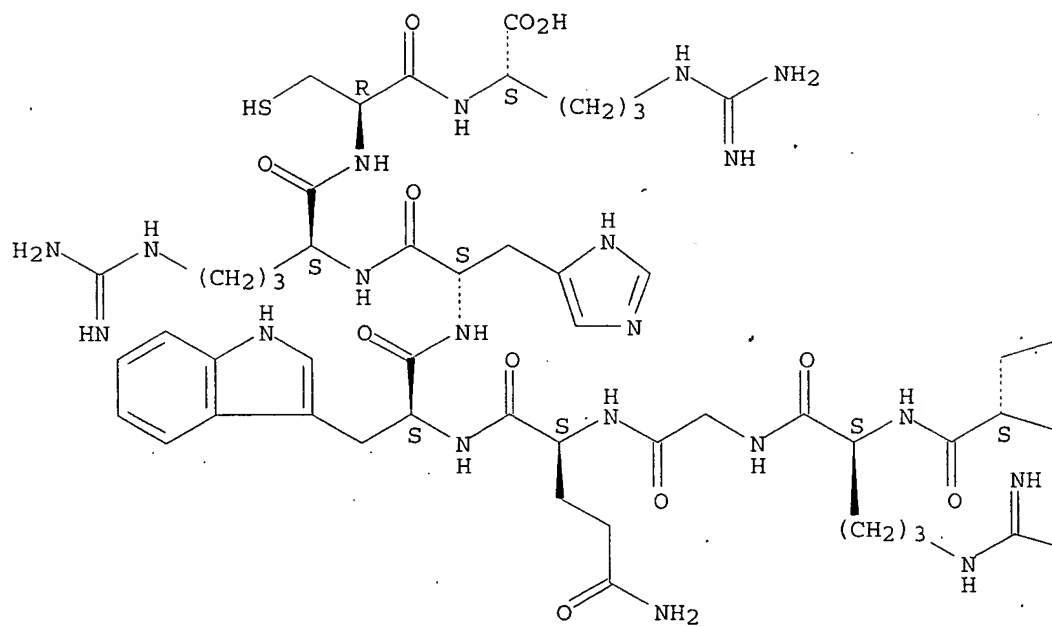


RN 508197-02-2 HCAPLUS

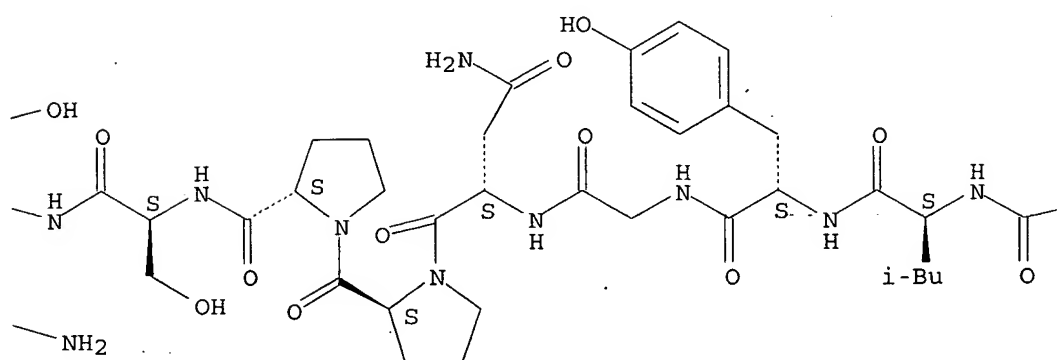
CN L-Arginine, L- $\alpha$ -aspartyl-L- $\alpha$ -aspartyl-L- $\alpha$ -aspartyl-L-lysyl-L-alanyl-L-phenylalanyl-L-tyrosyl-L-seryl-L-cysteinyl-L-leucyl-L-alanyl-L-threonyl-L-leucyl-L-leucyl-L-tyrosylglycyl-L-asparaginyL-L-prolyl-L-prolyl-L-seryl-L-seryl-L-arginylglycyl-L-glutaminyL-L-tryptophyl-L-histidyl-L-arginyl-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

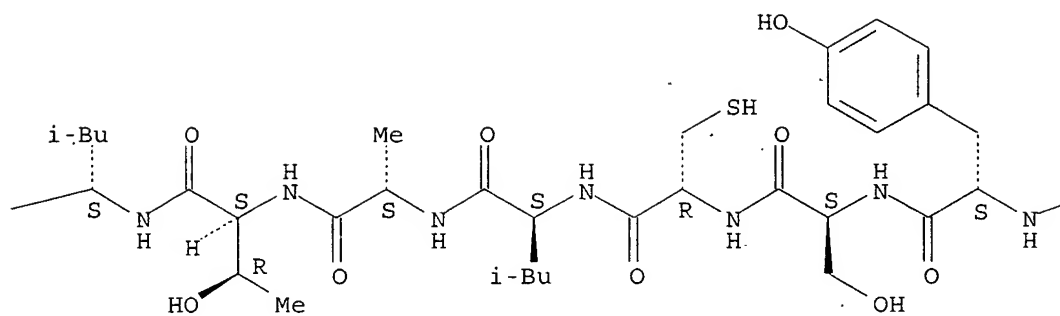
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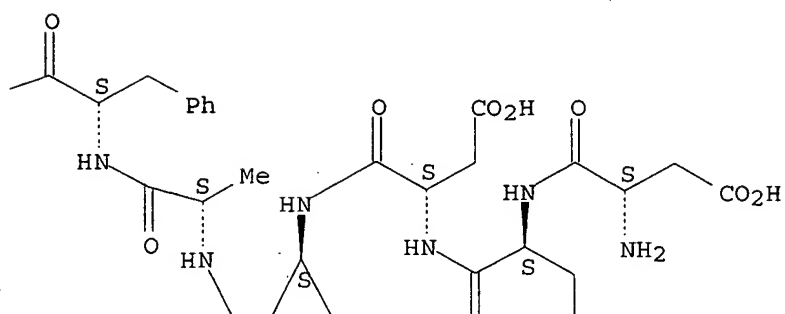
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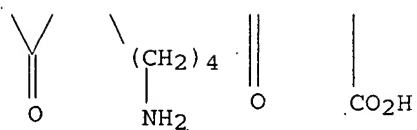


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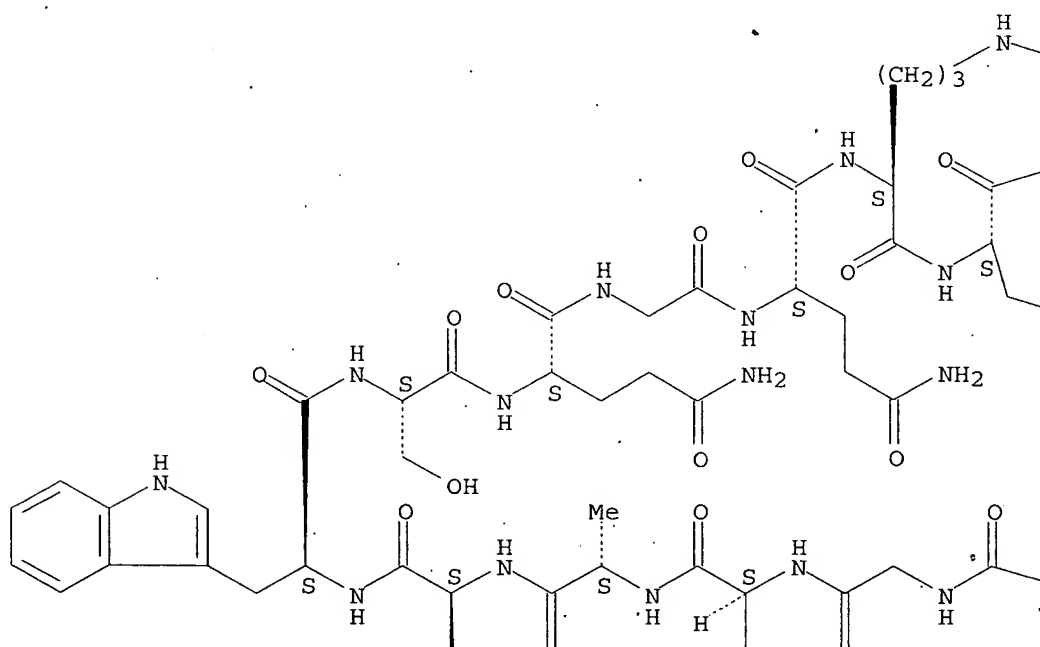


RN 508197-03-3 HCAPLUS

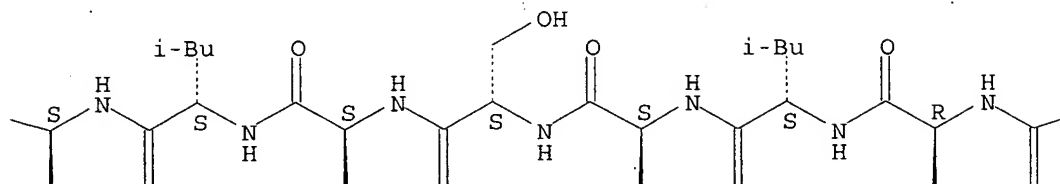
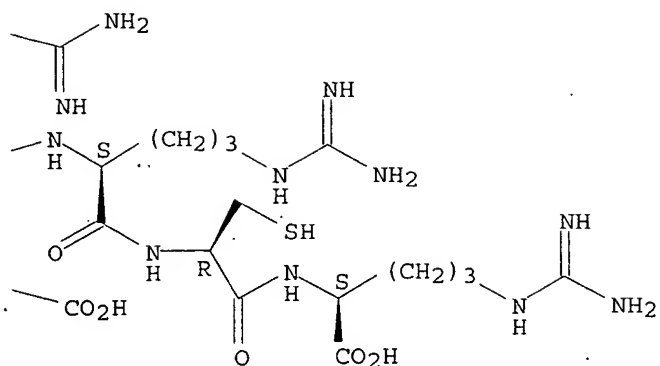
CN L-Arginine, glycyl-L- $\alpha$ -aspartyl-L- $\alpha$ -aspartyl-L-lysyl-L-threonyl-L-phenylalanyl-L-tyrosyl-L-alanyl-L-cysteinyl-L-leucyl-L-seryl-L-seryl-L-leucyl-L-leucyl-L-tyrosylglycyl-L-threonyl-L-alanyl-L- $\alpha$ -aspartyl-L-tryptophyl-L-seryl-L-glutaminylglycyl-L-glutaminyl-L-arginyl-L- $\alpha$ -aspartyl-L-arginyl-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

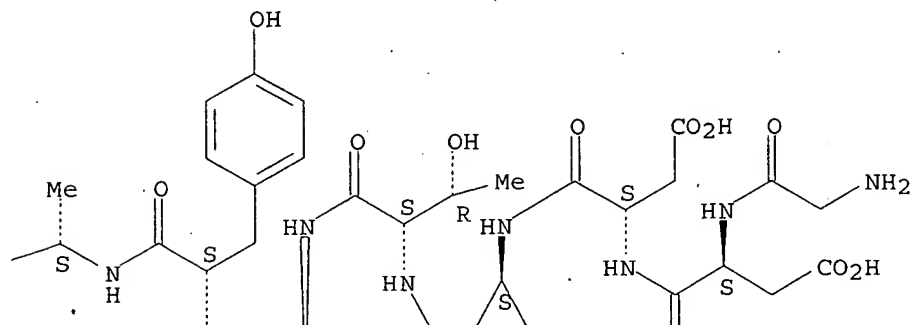
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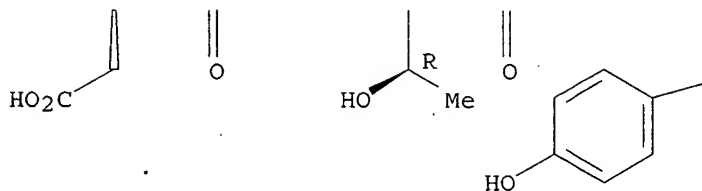
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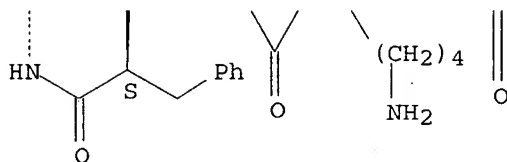
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IT 365229-31-8 365229-50-1 508197-02-2

508197-03-3

RL: PRP (Properties)

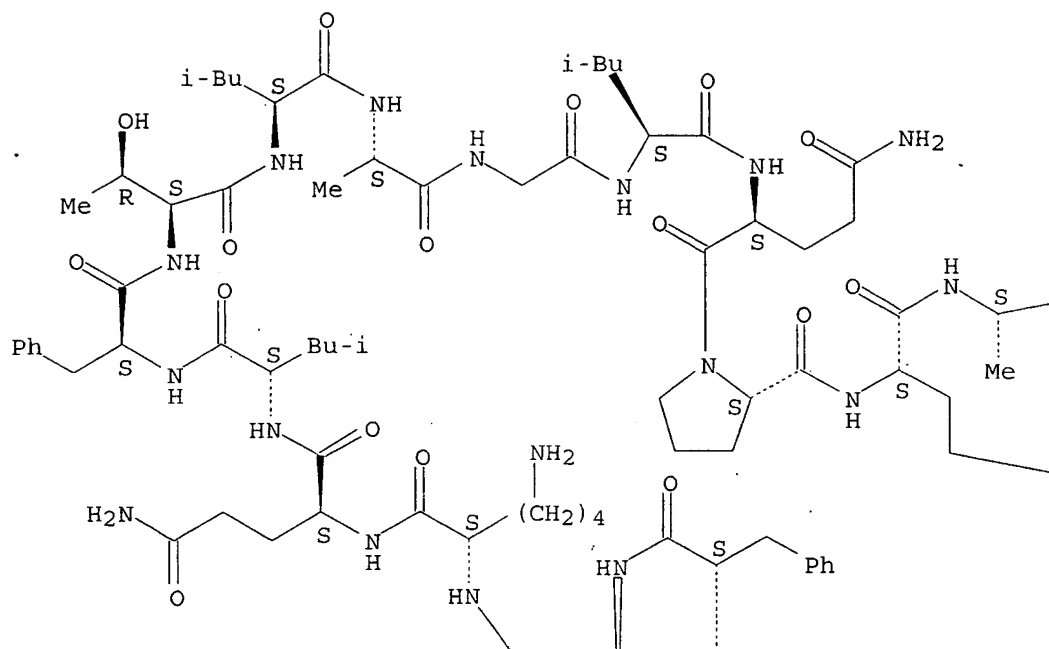
(unclaimed sequence; peptides from various peptide libraries, their dimers and fusion proteins as modulators of insulin and IGF-1 receptors)

RN 365229-31-8 HCAPLUS

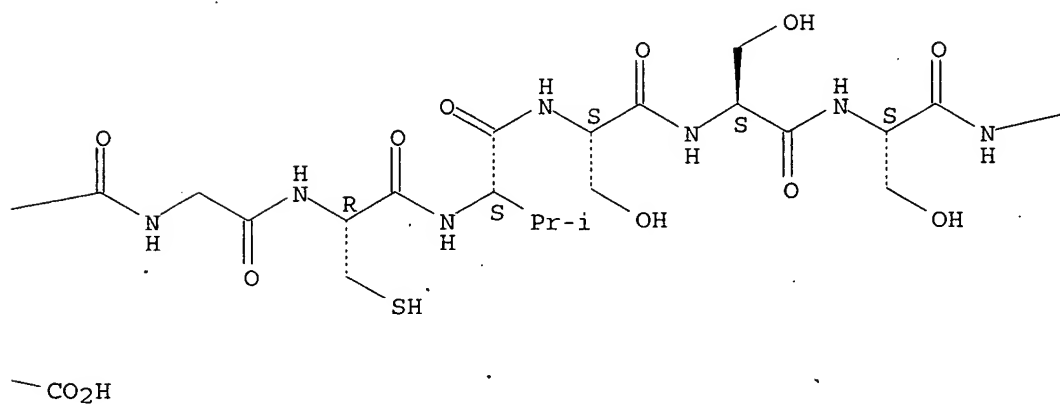
CN L-Arginine, glycyl-L-leucyl-L-leucyl-L-phenylalanyl-L-cysteinyl-L-lysyl-L-glutamyl-L-leucyl-L-phenylalanyl-L-threonyl-L-leucyl-L-alanylglycyl-L-leucyl-L-glutamyl-L-prolyl-L- $\alpha$ -glutamyl-L-alanylglycyl-L-cysteinyl-L-valyl-L-seryl-L-seryl-L-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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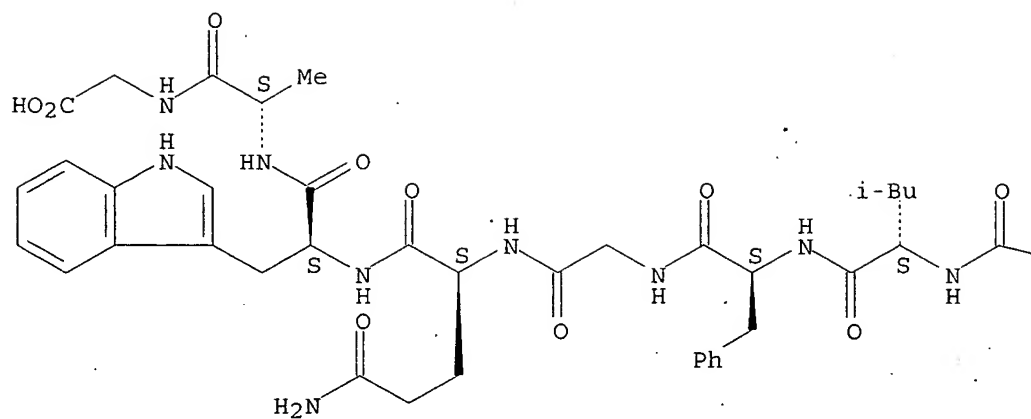


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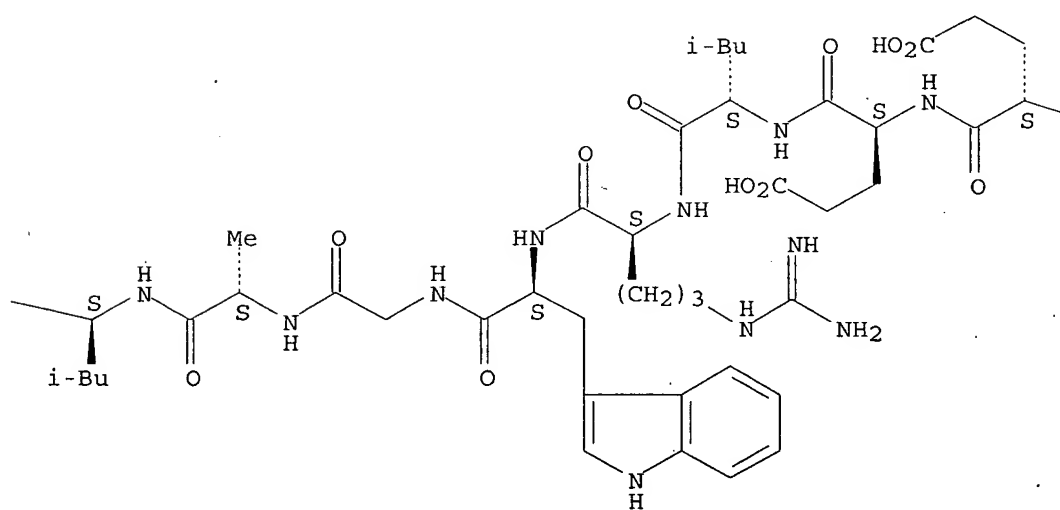


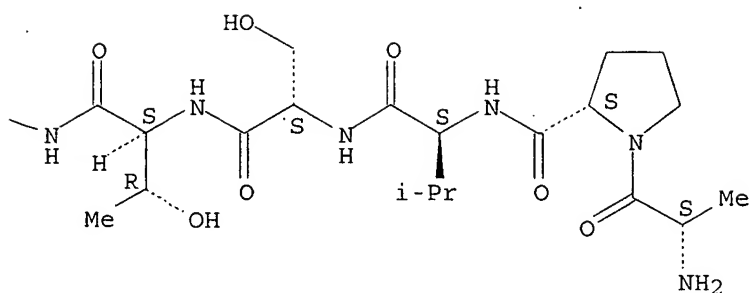


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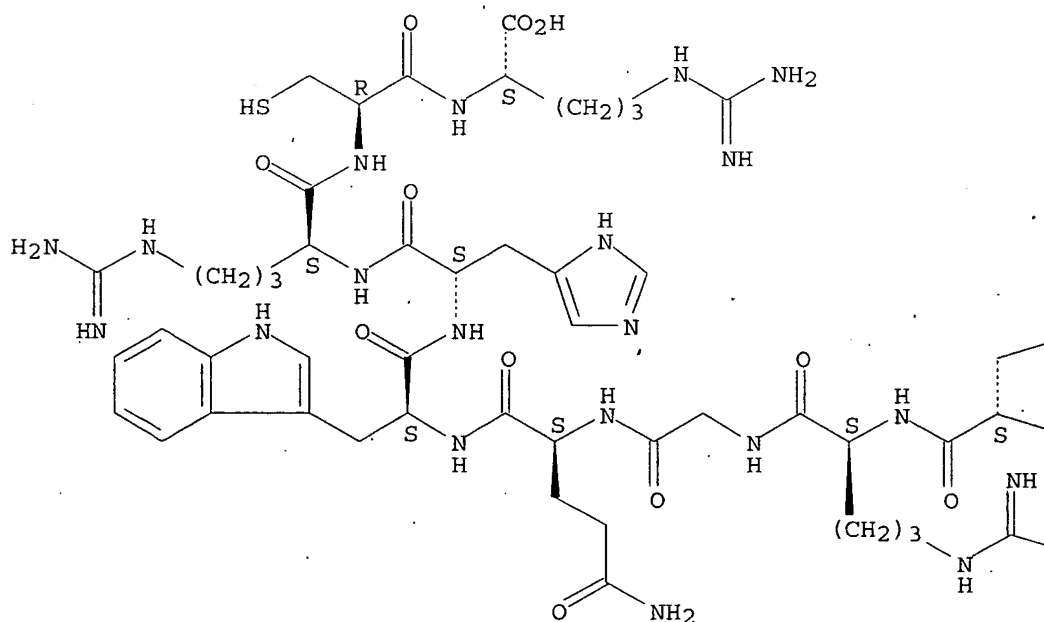




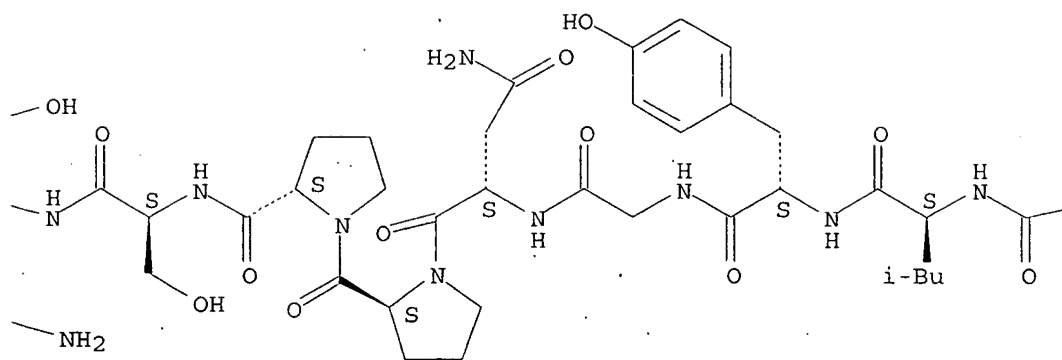
CN	L-Arginine, L- $\alpha$ -aspartyl-L- $\alpha$ -aspartyl-L- $\alpha$ -aspartyl-L-lysyl-L-alanyl-L-phenylalanyl-L-tyrosyl-L-seryl-L-cysteinyl-L-leucyl-L-alanyl-L-threonyl-L-leucyl-L-leucyl-L-tyrosylglycyl-L-asparaginyL-L-prolyl-L-prolyl-L-seryl-L-seryl-L-arginylglycyl-L-glutaminyL-L-tryptophyl-L-histidyl-L-arginyL-L-cysteinyl- (9CI) (CA INDEX NAME)
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Absolute stereochemistry.

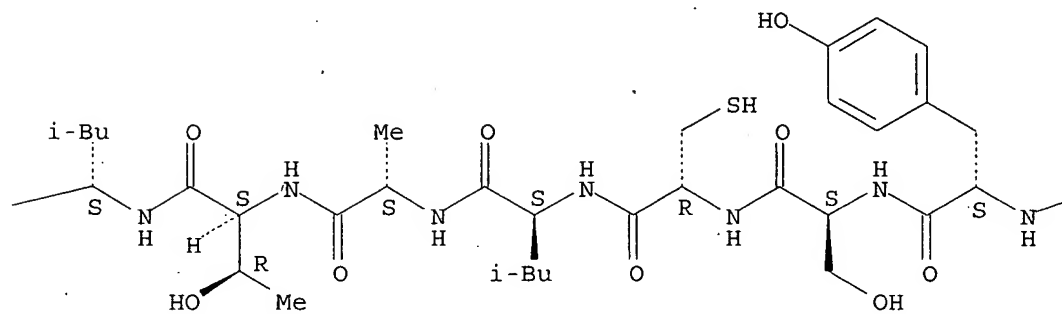
PAGE 1-A



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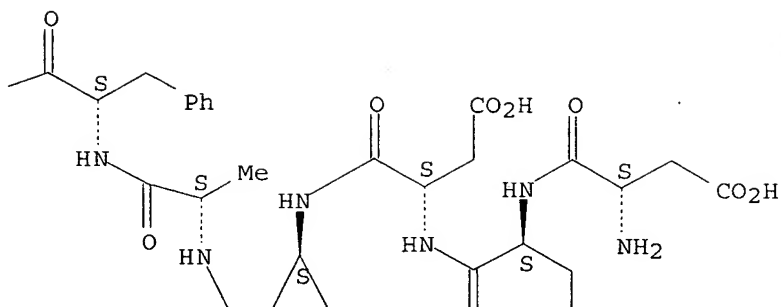


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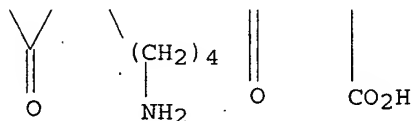




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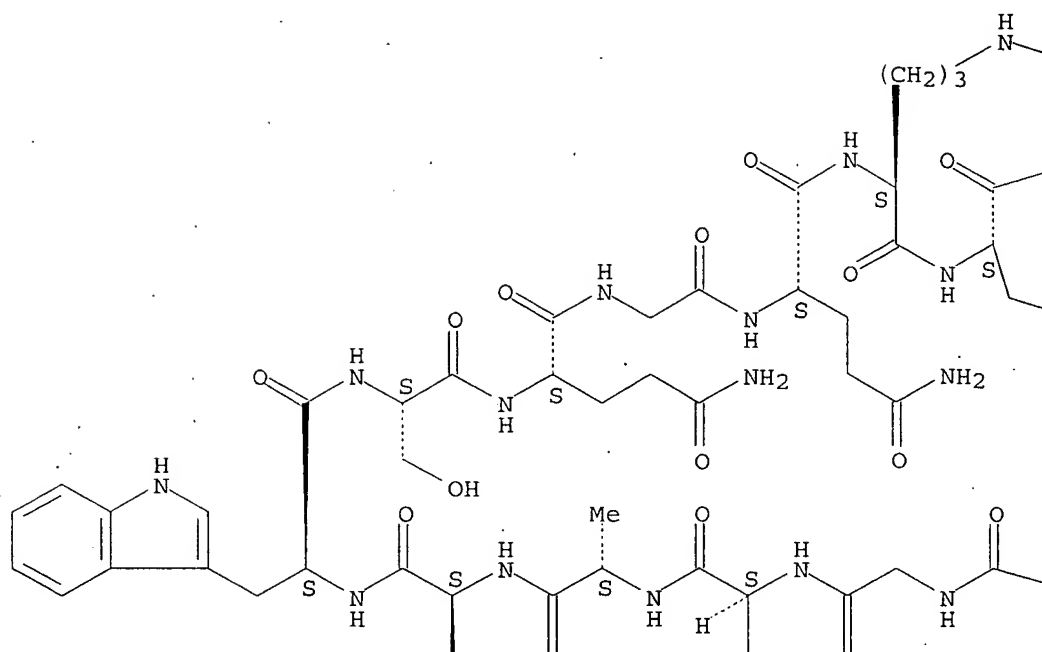
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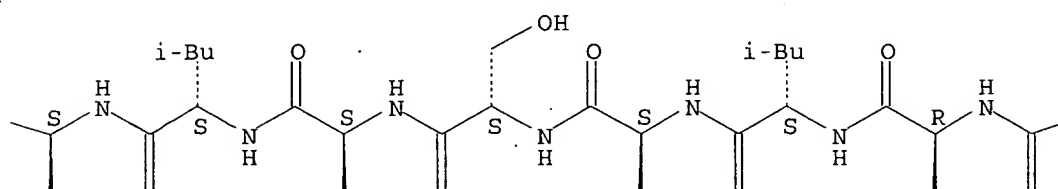
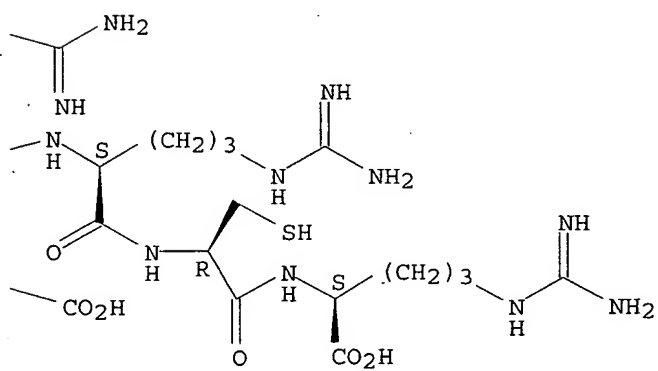
RN 508197-03-3 HCAPLUS  
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Absolute stereochemistry.

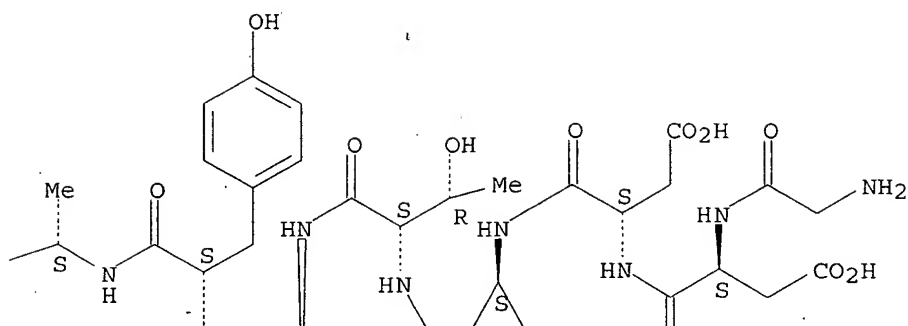
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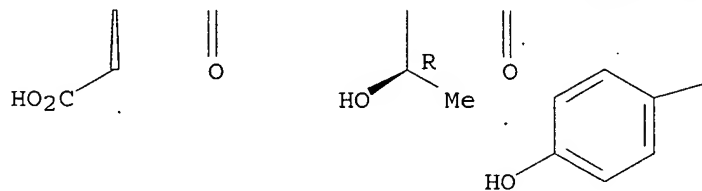
PAGE 1-B



PAGE 1-C



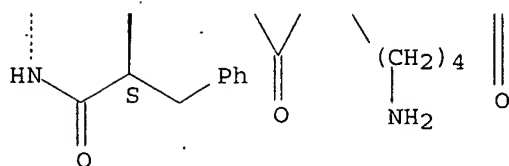
PAGE 2-A



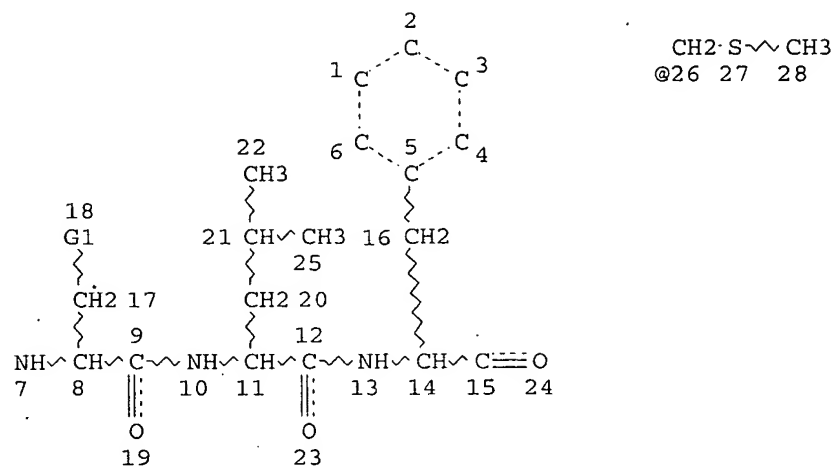
PAGE 2-B



PAGE 2-C



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L3 STR



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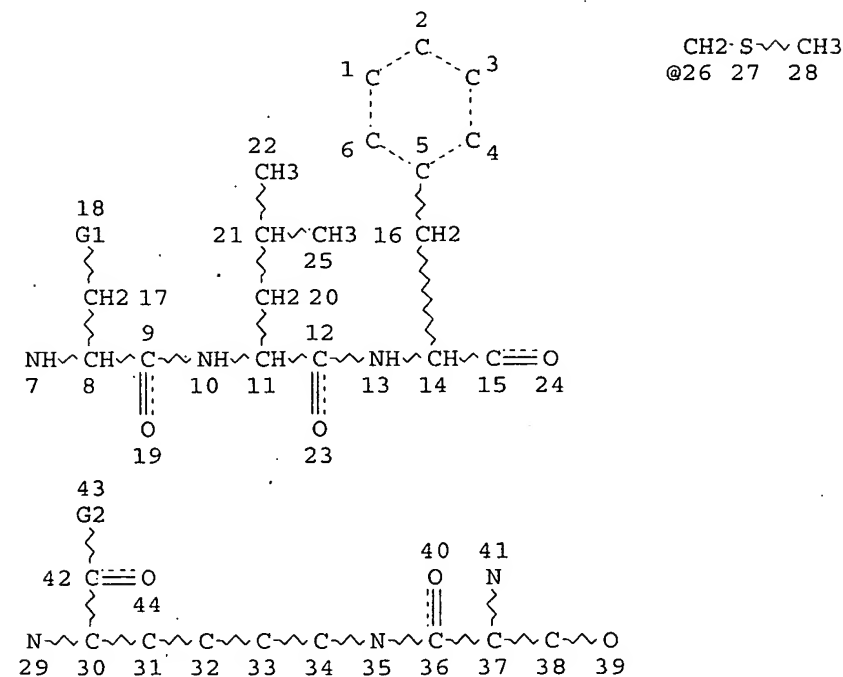
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L6 STR



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NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

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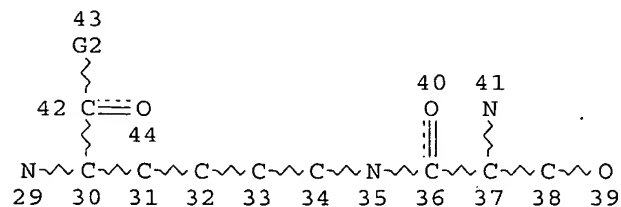
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STEREO ATTRIBUTES: NONE

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L14 STR



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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

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NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE

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L20 5 SEA FILE=HCAPLUS ABB=ON PLU=ON (L18 AND L19) NOT L17

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L22 1 SEA FILE=HCAPLUS ABB=ON PLU=ON (L21 AND (L18 OR L19)) NOT  
(L17 OR L20)

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L22 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:292035 HCAPLUS

DOCUMENT NUMBER: 140:297505

TITLE: Compound binding to leukocytes and medicinal  
composition containing the compound in labeled state  
as the active ingredient

INVENTOR(S): Seki, Ikuya; Kawaguchi, Takayoshi;  
Shirakami, Yoshifumi

PATENT ASSIGNEE(S): Nihon Medi-Physics Co., Ltd., Japan

SOURCE: PCT Int. Appl., 101 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

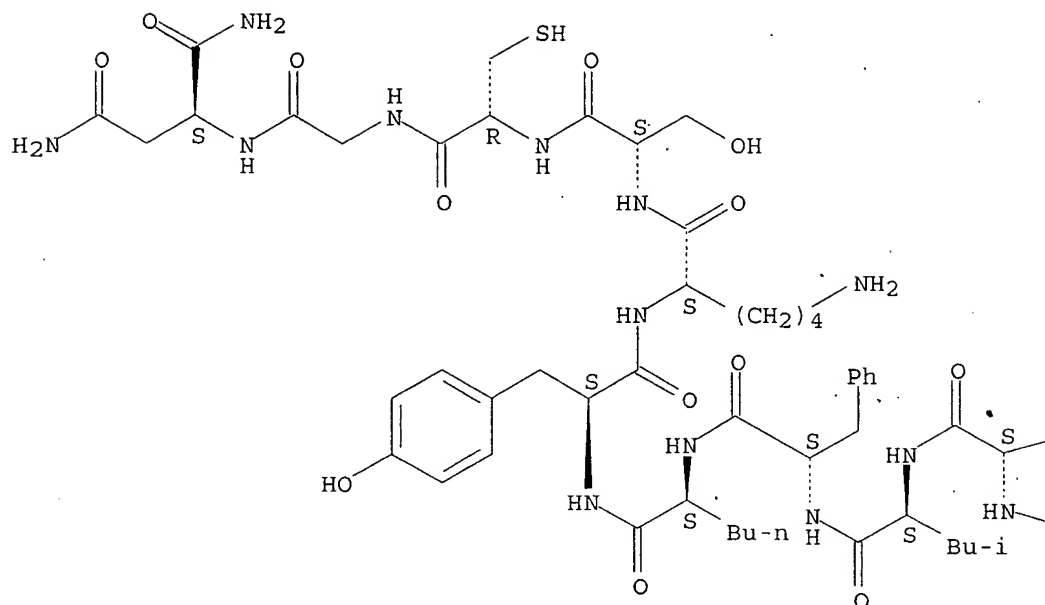
FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004029080	A1	20040408	WO 2003-JP12362	20030926
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2498826	AA	20040408	CA 2003-2498826	20030926
AU 2003266655	A1	20040419	AU 2003-266655	20030926
EP 1548027	A1	20050629	EP 2003-798531	20030926
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
NO 2005001948	A	20050615	NO 2005-1948	20050421
PRIORITY APPLN. INFO.:				
			JP 2002-282229	A 20020927
			WO 2003-JP12362	W 20030926
AB	A compound binding to leukocytes, which comprises Met or Nle-Leu-Phe serving as the leukocyte-binding site of a formyl peptide receptor (FPR), a binding part comprising Ser or Thr elevating the binding ratios to monocytes and lymphocytes in all leukocytes, a group which can be labeled with a radioactive metal or a paramagnetic metal, and a spacer binding them shows binding properties specific to all leukocytes, i.e., neutrophilic leukocytes, monocytes and lymphocytes both in vivo and in vitro and can be labeled with a radioactive metal or a paramagnetic metal. Owing to these characteristics, this compound is highly useful in SPECT image diagnosis, PET image diagnosis, MRI image diagnosis and so on wherein imaging is performed in a site with vigorous leukocyte infiltration accompanied by an immune reaction in an individual.			
IT	676626-24-7P 676626-26-9P 676626-27-0P 676626-28-1P 676626-29-2P 676626-30-5P 676626-31-6P 676626-32-7P 676626-33-8P 676626-34-9P 676626-35-0DP, Methylated 676626-35-0P RL: PKT (Pharmacokinetics); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (peptide compds. binding to leukocytes and medicinal composition containing			
the	compds. in labeled state as the active ingredients as radioimaging agents)			
RN	676626-24-7 HCAPLUS			
CN	L-Aspartamide, N-formyl-L-norleucyl-L-leucyl-L-phenylalanyl-L-norleucyl-L-tyrosyl-L-lysyl-L-seryl-L-cysteinyglycyl- (9CI) (CA INDEX NAME)			

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

— Bu-n

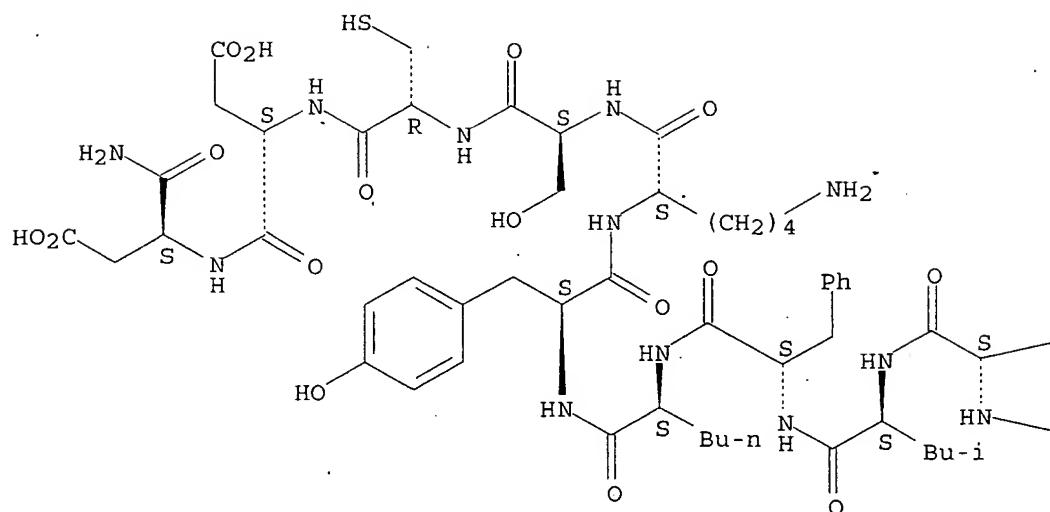
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RN 676626-26-9 HCAPLUS

CN L- $\alpha$ -Asparagine, N-formyl-L-norleucyl-L-leucyl-L-phenylalanyl-L-norleucyl-L-tyrosyl-L-lysyl-L-seryl-L-cysteinyl-L- $\alpha$ -aspartyl- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

— Bu-n

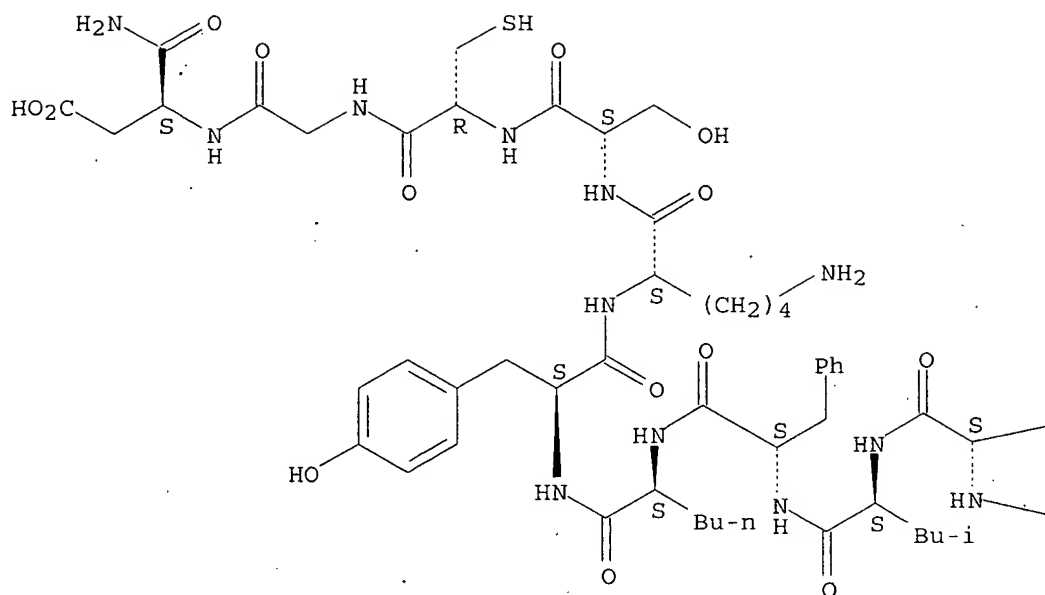
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RN 676626-27-0 HCAPLUS

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Absolute stereochemistry.



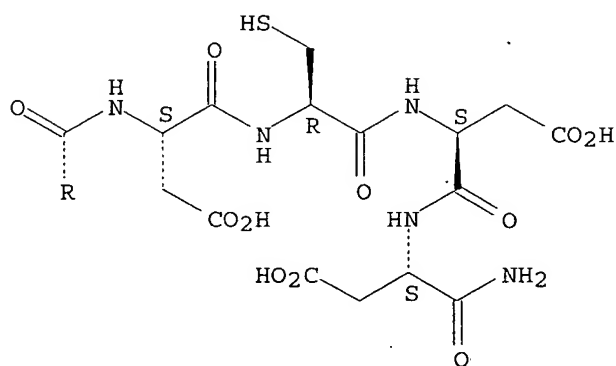
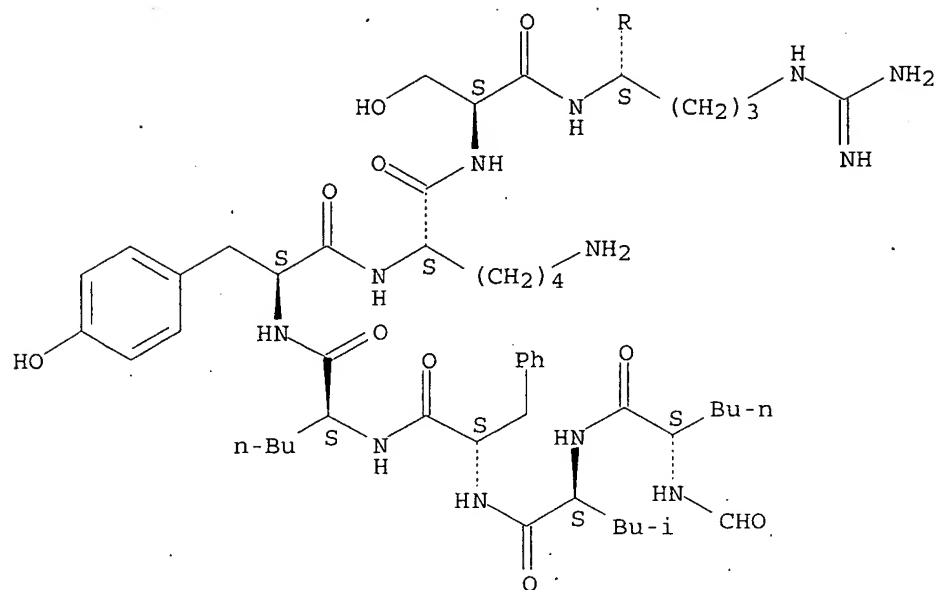


—Bu-n

—CHO

RN 676626-28-1 HCAPLUS  
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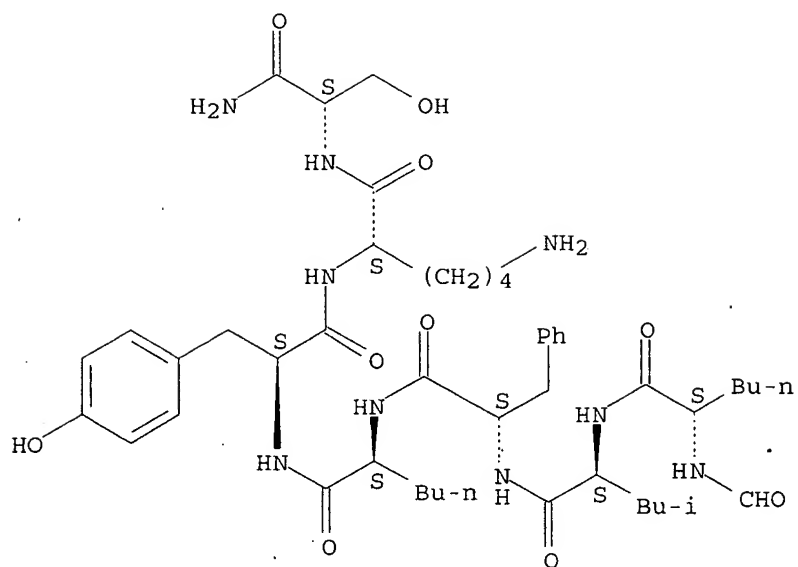
Absolute stereochemistry.



RN 676626-29-2 HCAPLUS

CN L-Serinamide, N-formyl-L-norleucyl-L-leucyl-L-phenylalanyl-L-norleucyl-L-tyrosyl-L-lysyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

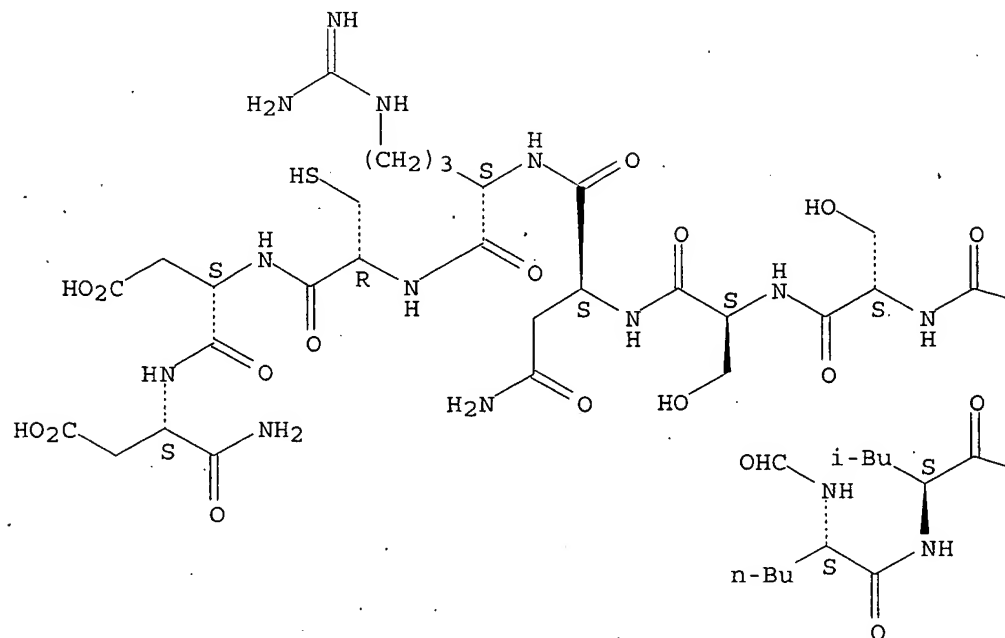


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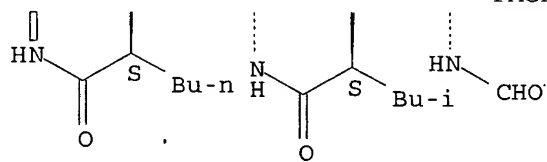
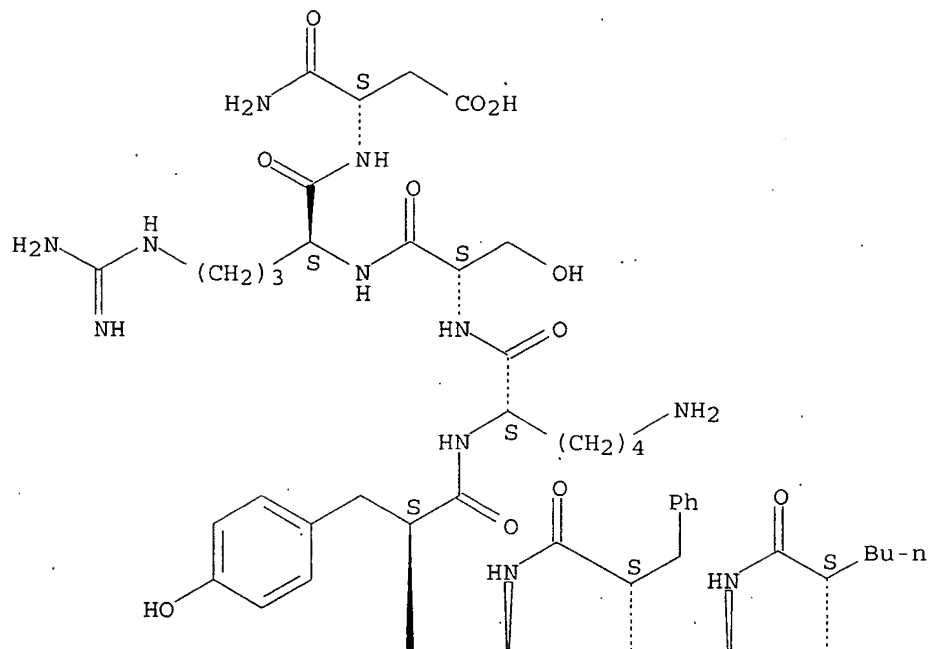
CN L- $\alpha$ -Asparagine, N-formyl-L-norleucyl-L-leucyl-L-phenylalanyl-L-lysyl-L-seryl-L-seryl-L-asparaginyl-L-arginyl-L-cysteinyl-L- $\alpha$ -aspartyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A







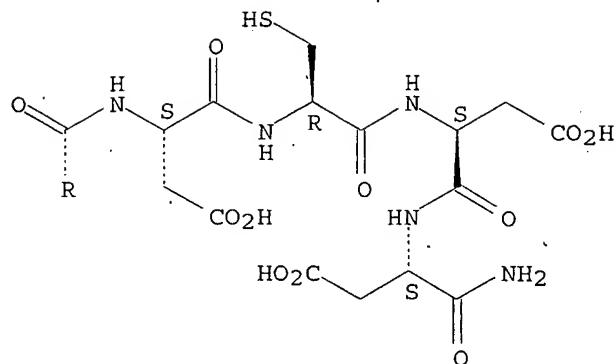
RN 676626-33-8 HCAPLUS

CN L-Aspartamide, N-formyl-L-norleucyl-L-leucyl-L-phenylalanyl-L-norleucyl-L-tyrosyl-L-lysyl-L-seryl-L-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



PAGE 2-A

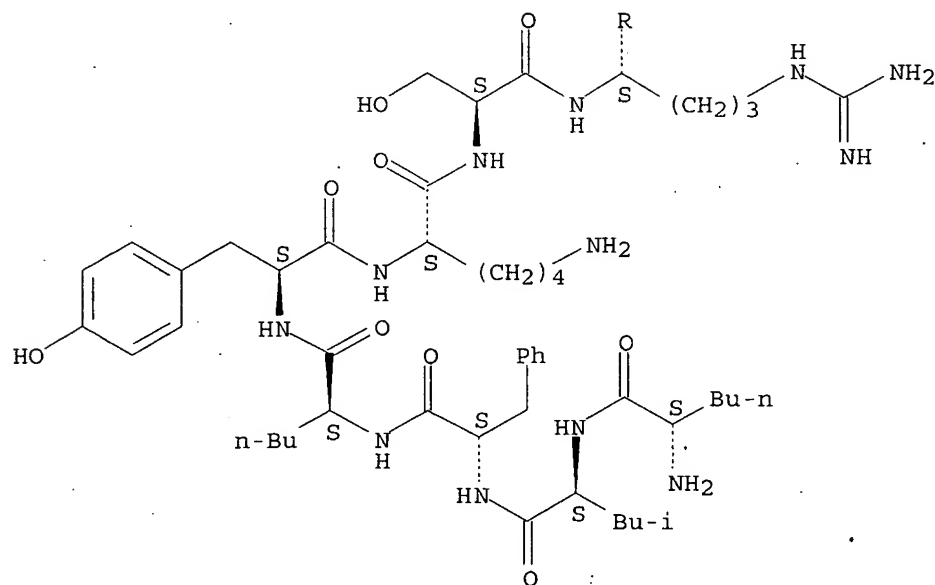


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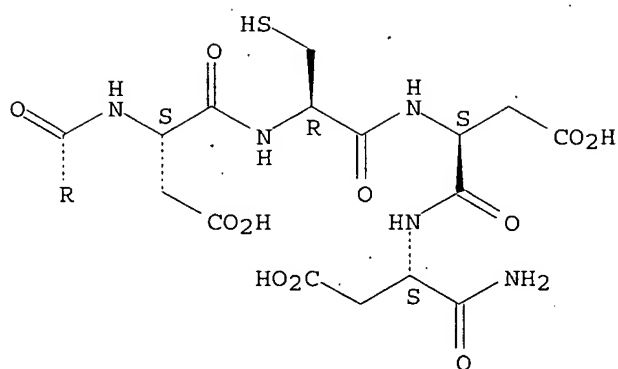
CN L- $\alpha$ -Asparagine, L-norleucyl-L-leucyl-L-phenylalanyl-L-norleucyl-L-tyrosyl-L-lysyl-L-seryl-L-arginyl-L- $\alpha$ -aspartyl-L-cysteinyl-L- $\alpha$ -aspartyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

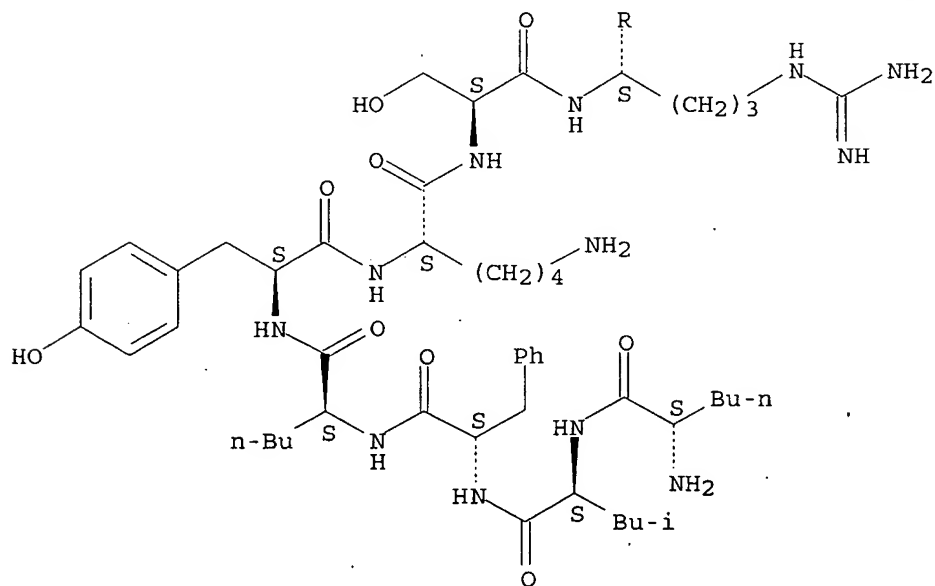


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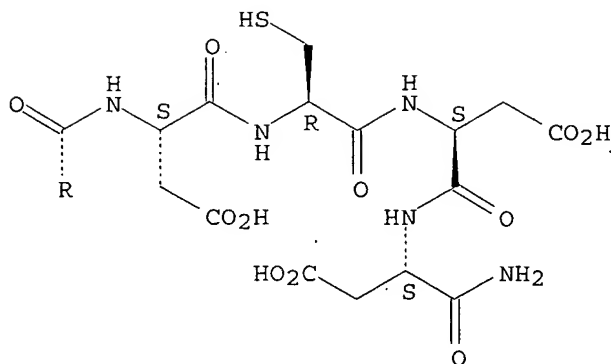
CN L- $\alpha$ -Asparagine, L-norleucyl-L-leucyl-L-phenylalanyl-L-norleucyl-L-tyrosyl-L-lysyl-L-seryl-L-arginyl-L- $\alpha$ -aspartyl-L-cysteinyl-L- $\alpha$ -aspartyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A







REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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 L18 6518 SEA FILE=HCAPLUS ABB=ON PLU=ON L5  
 L19 41 SEA FILE=HCAPLUS ABB=ON PLU=ON L16  
 L20 5 SEA FILE=HCAPLUS ABB=ON PLU=ON (L18 AND L19) NOT L17  
 L21 9 SEA FILE=HCAPLUS ABB=ON PLU=ON "SEKI I"/AU OR "SEKI IKUYA"/AU  
 L22 1 SEA FILE=HCAPLUS ABB=ON PLU=ON (L21 AND (L18 OR L19)) NOT (L17 OR L20)  
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 L19 41 SEA FILE=HCAPLUS ABB=ON PLU=ON L16  
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 L18 6518 SEA FILE=HCAPLUS ABB=ON PLU=ON L5  
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 L20 5 SEA FILE=HCAPLUS ABB=ON PLU=ON (L18 AND L19) NOT L17  
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 OR L20 OR L22)

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L28 ANSWER 1 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:161544 HCAPLUS

DOCUMENT NUMBER: 140:352730

TITLE: A Tc-99m-Labeled Long Chain Fatty Acid Derivative for Myocardial Imaging

AUTHOR(S): Magata, Yasuhiro; Kawaguchi, Takayoshi; MisaUkon; Yamamura, Norio; Uehara, Tomoya; Ogawa, Kazuma; Arano, Yasushi; Temma, Takashi; Mukai, Takahiro; Tadamura, Eiji; Saji, Hideo

CORPORATE SOURCE: Laboratory of Genome Bio-Photonics, Photon Medical Research Center, Hamamatsu University School of Medicine, Hamamatsu, Japan

SOURCE: Bioconjugate Chemistry (2004), 15(2), 389-393

CODEN: BCCHE; ISSN: 1043-1802

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB C-11- and I-123-labeled long chain fatty acid derivs. have been reported as useful radiopharmaceuticals for the estimation of myocardial fatty acid metabolism. We have reported that Tc-99m-labeled N-[[[(2-mercaptoethyl)amino]carbonyl]methyl]-N-(2-mercaptoethyl)-6-aminohexanoic acid ([99mTc]MAMA-HA), a medium chain fatty acid derivative, is metabolized by  $\beta$ -oxidation in the liver and that the MAMA ligand is useful for attaching to the omega-position of fatty acid derivs. as a chelating group for Tc-99m. On the basis of these findings, we focused on developing a Tc-99m-labeled long chain fatty acid derivative that reflected fatty acid metabolism in the myocardium. In this study, we synthesized a dodecanoic acid derivative, MAMA-DA, and a hexadecanoic acid derivative, MAMA-HDA, and performed

radiolabeling and biodistribution studies.. [99mTc]MAMA-DA and [99mTc]MAMA-HDA were prepared using a ligand-exchange reaction. Biodistribution studies were carried out in normal mice and rats. Then, a high initial uptake of Tc-99m was observed, followed by a rapid clearance from the heart. The maximum heart/blood ratio was 3.6 at 2 min postinjection of [99mTc]MAMA-HDA. These kinetics were similar to those with

postinjection of p-[125I]iodophenylpentadecanoic acid. Metabolite anal. showed [99mTc]MAMA-HDA was metabolized by  $\beta$ -oxidation in the body. In conclusion, [99mTc]MAMA-HDA is a promising compound as a long chain fatty acid analog for estimating  $\beta$ -oxidation of fatty acid in the heart.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 2 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:378593 HCAPLUS

DOCUMENT NUMBER: 140:73223

TITLE: Uptake of FDG (2-fluoro-2-deoxy-D-glucose) as a tumor imaging agent into erythrocytes and accumulation of FDG in tumor cells

AUTHOR(S): Minosako, Yoshihito; Nemoto, Masahiro; Ino, Sento; Shirakami, Yoshifumi; Kurami, Miki

CORPORATE SOURCE: Research Centre, Research & Development Division, Nihon Medi-physics Co., Ltd., Japan

SOURCE: Kaku Igaku (2003), 40(1), 23-30

CODEN: KAIGBZ; ISSN: 0022-7854

PUBLISHER: Nippon Kaku Igakkai

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB Fluorine-18-2-fluoro-2-deoxy-D-glucose (18F-FDG) injectable was developed as a tumor imaging agent reflecting glucose metabolism. In membrane transportation studies, the uptake of 14C-FDG into erythrocytes decreased with an increase in glucose concentration, and Cytochalasin B, inhibitor of glucose transporter (GLUT), blocked the uptake about 75%. The results means FDG is transported into tumor cells mainly by GLUT as glucose analogs. 18F-FDG is recognized to be phosphorylated to 18F-FDG-6-phosphate with hexokinase. We found that FDG-6-phosphate was further isomerized to 18F-FDM-6-phosphate by phosphoglucose isomerase (PGI) in vitro. About 27% 18F-FDM-6-phosphate was generated at the reaction with 70 U PGI for 90 min. These results show that the 18F-FDG injectable manufactured by the com. supply system has equivalent properties; membrane transportation characteristic and enzyme affinity, to FDG synthesized at each PET institution.

L28 ANSWER 3 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:328739 HCAPLUS

DOCUMENT NUMBER: 139:334841

TITLE: In vivo imaging of metabolism with radiohalogenated molecules by nuclear medicine technology in human body

AUTHOR(S): Shirakami, Yoshifumi

CORPORATE SOURCE: R & D Coordination Department Nihon Med-Physics Co., Ltd., Tokyo, 102-0073, Japan

SOURCE: Biomedical Research on Trace Elements (2003), 14(1), 22-28

CODEN: BRTEE5; ISSN: 0916-717X

PUBLISHER: Nippon Biryo Genso Gakkai

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. Radioactive nuclides, represented by 18F and 123I, are commonly used isotopes for nuclear medicine practices. Biol. active mols. labeled with these isotopes behave as of the mimics of the naturally occurring biol. mols., allowing the visualization of metabolism in the human body in vivo. 18F-FDG (2-fluoro-2-deoxy-glucose) and 123I-BMIPP (p-iodophenyl-beta-methyl-pentadecanoic acid) are widely used tracers as for glucose and fatty acid analogs in clinics. This article discusses mechanism of actions of 123I-BMIPP as a representative radiohalogenated mol. for in vivo imaging of biol. active mols.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 4 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2001:935454 HCAPLUS  
 DOCUMENT NUMBER: 136:58852  
 TITLE: Stabilizer for radiopharmaceuticals  
 INVENTOR(S): Storey, Anthony Eamon; Brauers, Georg; Hanaoka, Koichi; Minosako, Yoshihito; Homma, Koichi; Shirakami, Yoshifumi  
 PATENT ASSIGNEE(S): Nycomed Amersham PLC, UK; Nihon Medi-Physics Co. Ltd.  
 SOURCE: PCT Int. Appl., 36 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001097862	A2	20011227	WO 2001-GB2652	20010618
WO 2001097862	A3	20020801		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2411577	AA	20011227	CA 2001-2411577	20010618
EP 1292338	A2	20030319	EP 2001-938456	20010618
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JP 2004509848	T2	20040402	JP 2002-503345	20010618
NZ 522825	A	20040528	NZ 2001-522825	20010618
NO 2002006138	A	20030221	NO 2002-6138	20021219
US 2005063902	A1	20050324	US 2004-296952	20041021
PRIORITY APPLN. INFO.:			GB 2000-15242	A 20000622
			WO 2001-GB2652	W 20010618

AB The present invention provides an improved stabilizer for radiopharmaceuticals which inhibits impurities from being produced by two kinds of decomposition mechanisms and exhibits such an effect that the shelf life of a radiopharmaceutical after its preparation is prolonged as compared with conventional ones. The improvement comprises a combination of an amino-substituted aromatic carboxylic acid or its salt, ester or amide in combination with a diphosphonic acid or its salt. A composition comprising 0.5 mg of hexamethylpropyleneamine oxime (I), 5.4 µg of Sn<sup>2+</sup>, 40.5 µg of methylenediphosphonic acid, and 0.5 mg of sodium p-aminobenzoic acid was prepared. The radiochem. purity of 99m-Tc-I 3 h after Tc-99m labeling was about 80%.

L28 ANSWER 5 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2000:445095 HCAPLUS  
 DOCUMENT NUMBER: 133:331506  
 TITLE: Kinetics of a putative hypoxic tracer, 99mTc-HL91, in normoxic, hypoxic, ischemic, and stunned myocardium  
 AUTHOR(S): Imahashi, Kenichi; Morishita, Kenichi; Kusuoka, Hideo; Yamamichi, Yoshihiro; Hasegawa, Shinji; Hashimoto,

Katsuji; Shirakami, Yoshifumi; Kato-Azuma, Makoto; Nishimura, Tsunehiko  
 CORPORATE SOURCE: Division of Tracer Kinetics, Osaka University Graduate School of Medicine, Suita, 565-0871, Japan  
 SOURCE: Journal of Nuclear Medicine (2000), 41(6), 1102-1107  
 CODEN: JNMEAQ; ISSN: 0161-5505  
 PUBLISHER: Society of Nuclear Medicine, Inc.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB 99mTc-4,9-diaza-3,3,10,10-tetramethyldodecan-2, 11-dione dioxime (HL91) was developed as a putative hypoxic reagent. This study focused on the myocardial kinetics of 99mTc-HL91 in various oxygen levels and perfusion states. Methods: The time-activity curve of 99mTc-HL91 was measured in isolated perfused rat heart after the bolus infusion. Results: 99mTc-HL91 was cleared quickly from normoxic hearts, and retention at 30 min after injection was  $0.18 \pm 0.02$  percentage injected dose per g of wet weight (mean  $\pm$  SE; n = 6). When the concentration of oxygen bubbling through the perfusate was reduced from 100% to 50%, 20%, 5%, and 0%, retention of 99mTc-HL91 increased to  $0.47 \pm 0.03$  (n = 5),  $0.48 \pm 0.03$  (n = 5),  $0.71 \pm 0.01$  (n = 5), and  $0.70 \pm 0.02$  (n = 5), resp. (P < 0.05). Compartment anal. revealed that the trapping mechanism, which was dependent on tissue oxygen concentration, determined the retention rate.

Although not retained in stunned myocardium ( $0.17 \pm 0.02$ , n = 5; P = not significant), 99mTc-HL91 was significantly retained when injected before ischemia ( $1.06 \pm 0.06$ , n = 5; P < 0.05). Conclusion: These results indicate that retention of 99mTc-HL91 correlates well with oxygen level in the perfusate, suggesting that the agent may be a useful marker of the severity of myocardial hypoxia.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 6 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2000:229491 HCAPLUS  
 DOCUMENT NUMBER: 133:131754  
 TITLE: Basic science of bone and radiopharmaceuticals for bone scintigraphy. Bisphosphonates  
 AUTHOR(S): Shirakami, Yoshifumi  
 CORPORATE SOURCE: R & D Coordination Group, Nihon Medi-Physics Co., Ltd., Japan  
 SOURCE: Kaku Igaku Gijutsu (2000), 20(1), 1-8  
 CODEN: KIGIEM; ISSN: 0289-100X  
 PUBLISHER: Nippon Kaku Igaku Gijutsu Gakkai  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: Japanese  
 AB A review, with 33 refs., discussing basic science of bone and radiopharmaceuticals for bone scintigraphy and pharmacol. of bisphosphonates for treatment of bone diseases including osteoporosis.

L28 ANSWER 7 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1999:596579 HCAPLUS  
 DOCUMENT NUMBER: 132:119346  
 TITLE: Development of 18F-FDG ([F-18]-2-fluoro-2-deoxy-D-glucose) injection for imaging of tumor reflecting glucose metabolism results of preclinical studies  
 AUTHOR(S): Ino, Sento; Shimada, Takayuki; Kanagawa, Masaru; Suzuki, Noriaki; Kondo, Susumu; Shirakami, Yoshifumi; Ito, Osamu; Kato-Azuma, Makoto  
 CORPORATE SOURCE: Res. Cent., Res. & Dev. Div., Nihon Medi-Phys. Co., Ltd., Japan

SOURCE: Kaku Igaku (1999), 36(5), 467-476  
CODEN: KAIGBZ; ISSN: 0022-7854  
PUBLISHER: Nippon Kaku Igakkai  
DOCUMENT TYPE: Journal  
LANGUAGE: Japanese

AB Fluorine-18-2-fluoro-2-deoxy-D-glucose (18F-FDG) injection was prepared by a modification of a method originally developed by Hamacher et al. The dosage form is the injectable solution (2 mL) containing 185 MBq of 18F-FDG at

a calibration time. Preclin. studies of the agent were performed. Its radiochem. purity is more than 95% and expiration time is 4 h after the calibration time at ambient temperature. No toxicity was observed with up to

200 mg/kg and 100 mg/kg of non-radioactive FDG i.v. injected to rats and dogs in single-dose toxicity tests, resp. Biodistribution studies demonstrated that the radioactivity was mainly distributed into brain (3.0 to 3.3%I.D./Organ at 30 min) and heart (4.2 to 5.8%I.D./Organ at 1 to 3 h) after i.v. injection of the agent to normal rats. In a tumor transplanted mouse model (colon 26), tumor uptake was  $10.9 \pm 3.5\%$  I.D./g at 1 h after i.v. injection of the agent, the radioactivity was retained until 3 h. The radiation absorbed dose was estimated according to the MIRD Pamphlet based on the biodistribution data both in humans reported by Mejia et al. and rats described in this report. The radiation absorbed dose was not higher than those of com. available radiopharmaceuticals. In conclusion, the 18F-FDG injection is expected to be useful for further clin. application.

L28 ANSWER 8 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:236828 HCAPLUS  
DOCUMENT NUMBER: 131:55862

TITLE: Technetium-99m-Labeled Medium-Chain Fatty Acid Analogs Metabolized by  $\beta$ -Oxidation: Radiopharmaceutical for Assessing Liver Function

AUTHOR(S): Yamamura, Norio; Magata, Yasuhiro; Arano, Yasushi; Kawaguchi, Takayoshi; Ogawa, Kazuma; Konishi, Junji; Saji, Hideo

CORPORATE SOURCE: Department of Patho-Functional Bioanalysis Graduate School of Pharmaceutical Sciences Department of Nuclear Medicine, Graduate School of Medicine Kyoto University, Kyoto, 606-8501, Japan

SOURCE: Bioconjugate Chemistry (1999), 10(3), 489-495  
CODEN: BCCHE; ISSN: 1043-1802

PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB External imaging of energy production activity of living cells with 99mTc-labeled compds. is a challenging task requiring good design of 99mTc-radiopharmaceuticals. On the basis of our recent findings that 11C- and 123I-labeled medium-chain fatty acids are useful for measuring  $\beta$ -oxidation activity of hepatocytes, we focused on development of 99mTc-labeled medium-chain fatty acid analogs that reflect  $\beta$ -oxidation activity of the liver. In the present study, monoamine-monoamide dithiol (MAMA) ligand and triamido thiol (MAG) ligand were chosen as chelating groups because of the stability and size of their complexes with 99mTc and their ease of synthesis. Each ligand was attached to the  $\omega$ -position of hexanoic acid (MAMA-HA and MAG-HA, resp.). In biodistribution studies, [99mTc]MAMA-HA showed high initial accumulation in the liver followed by clearance of the radioactivity in the urine. Anal. of the urine revealed [99mTc]MAMA-BA as the sole radiometabolite. Furthermore, when [99mTc]MAMA-HA was incubated with living liver slices, generation of [99mTc]MAMA-BA was observed. However, [99mTc]MAMA-HA remained intact when the

compound was incubated with liver slices in the presence of 2-bromooctanoate, an inhibitor of  $\beta$ -oxidation. The findings in this study indicated that [99mTc]MAMA-HA was metabolized by  $\beta$ -oxidation after incorporation into the liver. On the other hand, poor hepatic accumulation was observed after administration of [99mTc]MAG-HA.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 9 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:253847 HCAPLUS  
DOCUMENT NUMBER: 126:235367  
TITLE: Tumor-affinity peptide, and radioactive diagnostic and therapeutic agents containing the peptide  
INVENTOR(S): Seki, Ikuya; Itaya, Yoshitoshi; Shirakami, Yoshifumi; Washino, Komei  
PATENT ASSIGNEE(S): Nihon Medi-Physics Co. Ltd., Japan; Antisoma Limited  
SOURCE: S. African, 62 pp.  
CODEN: SFXAB  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ZA 9509206	A	19960104	ZA 1995-9206	19951031
PRIORITY APPLN. INFO.:			ZA 1995-9206	19951031
OTHER SOURCE(S):	MARPAT 126:235367			

AB Peptides having an amino acid sequence containing 20 or less amino acid residues, the amino acid sequence being described as X1-YCAREPPT-X2 (A, C, E, P, R, T, Y = amino acid residues expressed by standard one-letter symbols, each of A, C, R and Y in amino acid sequence YCAR may be either L or D; X1 = basic organic compound having 1-3 amino groups; X2 = any given amino acid sequence), or salts thereof, are disclosed which have affinity with a tumor. Synthesis of peptides (sequences included) of the invention is described, as are e.g. biodistribution of 99mTc-labeled peptides and imaging of laryngeal cancer with a 99mTc-labeled peptide.

L28 ANSWER 10 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:542577 HCAPLUS  
DOCUMENT NUMBER: 125:215872  
TITLE: Indirect labeling of macroaggregated albumin with indium-111 via diethylenetriaminepentaacetic acid  
AUTHOR(S): Watanabe, Naoyuki; Shirakami, Yoshifumi; Tomiyoshi, Katsumi; Oriuchi, Noboru; Hirano, Tsuneo; Yukihiro, Masashi; Inoue, Tomio; Endo, Keigo  
CORPORATE SOURCE: Department Nuclear Medicine, Gunma University School Medicine, Maebashi, 371, Japan  
SOURCE: Nuclear Medicine and Biology (1996), 23(5), 595-598  
CODEN: NMBIEO; ISSN: 0883-2897  
PUBLISHER: Elsevier  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB It is ideal to perform a simultaneous pulmonary perfusion and ventilation scan in cases of suspected pulmonary thromboembolism. Indium-111 (111In)-diethylenetriaminepentaacetic acid (DTPA)-macroaggregated albumin (MAA) was designed for this purpose. MAA was conjugated with DTPA at a molar ratio of 1:100 and incubated with 111In-chloride for 30 min at room temperature. DTPA-MAA could be labeled with 111In above a 96% labeling efficiency without MAA particle aggregates making their particles larger

than desirable. The obtained <sup>111</sup>In-DTPA-MAA was i.v. injected into normal mice and their biodistribution was studied at 15 and 180 min after injection. A gamma camera image was obtained 15 min after injection. <sup>111</sup>In-DTPA-MAA was stable in vitro and in vivo, and gave high uptake of murine lung in the biodistribution study and clearly visualized murine lung in the scintigraph. Using <sup>111</sup>In-DTPA-MAA as a pulmonary perfusion agent, a simultaneous pulmonary perfusion and ventilation scan with technetium-99m-ventilation agents is able to be performed using the dual-isotope technique. <sup>111</sup>In-DTPA-MAA may be a potential pulmonary perfusion agent.

L28 ANSWER 11 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:452351 HCAPLUS

DOCUMENT NUMBER: 125:108361

TITLE: Metal chelate-forming peptides and use thereof for radiodiagnosis and radiotherapy

INVENTOR(S): Itaya, Yoshitoshi; Seki, Ikuya; Hanaoka, Koichi; Shirakami, Yoshifumi

PATENT ASSIGNEE(S): Nihon Medi-Physics Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 719790	A2	19960703	EP 1995-309302	19951220
EP 719790	A3	19970910		
EP 719790	B1	20030709		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
CA 2165228	AA	19960628	CA 1995-2165228	19951214
JP 08231587	A2	19960910	JP 1995-347332	19951214
AU 9540495	A1	19960704	AU 1995-40495	19951218
AU 703230	B2	19990318		
ZA 9510850	A	19960625	ZA 1995-10850	19951220
US 5770178	A	19980623	US 1995-575863	19951220
AT 244726	E	20030715	AT 1995-309302	19951220
ES 2199974	T3	20040301	ES 1995-309302	19951220
TW 514641	B	20021221	TW 1995-84113708	19951221
BR 9506097	A	19971223	BR 1995-6097	19951227
US 5785948	A	19980728	US 1997-815530	19970312

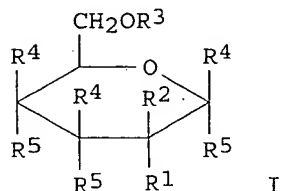
PRIORITY APPLN. INFO.: JP 1994-338024 A 19941227  
US 1995-575863 A3 19951220

AB The invention provides a metal chelate forming peptide having an amino acid sequence of three amino acid residues represented by: X1-X2-Cys, wherein X1 represents an amino acid residue other than Cys residue; X2 represents an amino acid residue other than Cys residue and Pro residue; functional groups at the N-terminus, C-terminus and side chain may be substituted with protecting groups; and each of the amino acid residues may be any of D-form and L-form. Further, the invention provides a complex of the peptide with a physiol. active peptide, protein or other substance; a labeled reagent obtained by labeling the peptide or the complex with a metal radionuclide; and a radiodiagnostic and radiotherapeutic composition comprising the metal radionuclide-labeled reagent. Chelate-forming peptides conjugated to a tumor-targeting peptide or an inflammation-targeting peptide were synthesized. The stability of the chelates was determined. Tc99-labeled conjugates were used for radioimaging of tumors and inflammation in rats.



L28 ANSWER 12 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1996:254285 HCAPLUS  
 DOCUMENT NUMBER: 124:311363  
 TITLE: Hydrophilic polymer and radioactive metal complexes as locally administered radio-therapeutic agents for treatment of cancer and inflammatory diseases  
 INVENTOR(S): Seki, Ikuya; Sato, Toku; Seri, Shigemi; Washino, Hiroaki  
 PATENT ASSIGNEE(S): Nihon Medipysics Co Ltd, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08012597	A2	19960116	JP 1993-290080	19931026
JP 3727074	B2	20051214		
PRIORITY APPLN. INFO.: GI			JP 1993-290080	19931026



AB Biodegradable hydrophilic polymers (polysaccharides and their derivs. containing 1-4 hydrophilic monomer I, with average mol. weight  $1 \times 10^3 - 1 \times 10^6$ ; R1, R2 = H, amino, or hydroxy group; R3 = H, glycol, or carboxymethyl group; R4, R5 = H or hydroxy group) and complex with 1 or >1 radioactive metals are claimed as locally administered radio-therapeutic agents for treatment of cancer and inflammatory diseases. Thus, I were prepared and their pharmacokinetics and antitumor and antiinflammatory effects were studied in mice and rats and discussed with their clin. effectiveness.

L28 ANSWER 13 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1996:184626 HCAPLUS  
 DOCUMENT NUMBER: 124:229987  
 TITLE: Tumor affinity peptide, and radioactive diagnostic agent and radioactive therapeutic agent containing the peptide.  
 INVENTOR(S): Seki, Ikuya; Itaya, Yoshitoshi; Shirakami, Yoshifumi; Washino, Komei  
 PATENT ASSIGNEE(S): Nihon Medi-Physics Co., Ltd., Japan  
 SOURCE: Can. Pat. Appl., 52 pp.  
 CODEN: CPXXEB  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2151099	AA	19951208	CA 1995-2151099	19950606
JP 08053494	A2	19960227	JP 1995-158747	19950601
AU 9520499	A1	19951214	AU 1995-20499	19950605
AU 684348	B2	19971211		
US 5827498	A	19981027	US 1995-463230	19950605
EP 700930	A1	19960313	EP 1995-108681	19950606
EP 700930	B1	19991103		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
AT 186306	E	19991115	AT 1995-108681	19950606
ES 2138111	T3	20000101	ES 1995-108681	19950606
TW 394777	B	20000621	TW 1995-84112123	19951116
PRIORITY APPLN. INFO.:			JP 1994-148655	A 19940607

OTHER SOURCE(S): MARPAT 124:229987

AB A peptide having affinity with tumor or a salt thereof, which comprises an amino acid sequence containing 20 or less amino acid residues, said amino acid sequence being described as X1-YCAREPIT-X2 wherein A, C, E, P, R, T and Y represent amino acid residues expressed by standard one-letter symbols, each of amino acid residues A, C, R and Y in the amino acid sequence YCAR may be in either L-form or D-form, X1 represents a basic organic compound having 1-3 amino groups, and X2 represents any given amino acid sequence, is provided together with a radioactive diagnostic agent and a radioactive therapeutic agent containing the above peptide or a salt thereof. The present tumor affinity peptide is high in radioactive metal labeling yield, useful for imaging and treating pathol. tissues such as of breast cancer, ovarian cancer and colon cancer of mammals including human, and difficult to be readily metabolized in organisms and to accumulate in normal tissues especially at kidney and liver. In example, 14 peptides was synthesized, labeled with technetium-99m, and tested for their biodistribution and use for detecting laryngeal cancer in nude mouse. Also a artificial tumor antigen, i.e. epitope VTSAPDTRPAGST of mucin core protein, was synthesized, conjugated to albumin, and used to measure the affinity of the peptides.

L28 ANSWER 14 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:660780 HCAPLUS

DOCUMENT NUMBER: 123:164165

TITLE: Metabolism of iodine-123-BMIPP in perfused rat hearts

AUTHOR(S): Yamamichi, Yoshihiro; Kusuoka, Hideo; Morishita, Kenichi; Shirakami, Yoshifumi; Kurami, Miki; Okano, Kyoko; Itoh, Osamu; Nishimura, Tsunehiko

CORPORATE SOURCE: Central Research Laboratory, Nihon Medi-Physics Co., Ltd., Sodegaura, 299-02, Japan

SOURCE: Journal of Nuclear Medicine (1995), 36(6), 1043-50  
CODEN: JNMEAQ; ISSN: 0161-5505

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Increased clin. use of <sup>123</sup>I-labeled 15-(p-iodophenyl)-3-(R,S)-methyl-pentadecanoic acid ([<sup>123</sup>I]BMIPP) revealed discordance between BMIPP uptake and that of perfusion agents, which was inexplicable due to the uncertainty of its myocardial metabolism. This study clarifies the metabolic fate of BMIPP and its relation to substrates in isolated rat hearts. Rat hearts were perfused with 5 mmole/L HEPES buffer containing various energy substrates and 1% bovine serum albumin. The buffer was recirculated for 4 h after bolus injection of [<sup>123</sup>I]BMIPP. Heart time-activity curves were monitored externally. After perfusion, the radioactivity in the heart and recirculated buffer was measured. The metabolites in the buffer were then extracted and analyzed by HPLC and TLC. When 0.4 mmole/L oleate was the

energy substrate, more than eight radioactive BMIPP metabolites were detected. The metabolites in the coronary effluent depended on the energy substrate in the buffer. The radioactivity in the heart at the end of the perfusion period was significantly higher when 0.4 mmole/L oleate (28.0% ID/g) or 10 mmole/L glucose with 25 U/L insulin (43.9% ID/g) were the substrates compared to when 5 mmole/L acetate (8.5% ID/g) or 0.4 mmole/L cold BMIPP (6.2% ID/g) were the substrates. The distribution of metabolites suggests that oleate stimulated both alpha and beta oxidns., whereas glucose with insulin inhibited both. Acetate also stimulated alpha oxidation but not beta oxidation. Cold BMIPP strongly inhibited both alpha- and beta-oxidns., and little alpha oxidation occurred compared to beta-oxidation. These results suggest that [<sup>123</sup>I]BMIPP is metabolized in the myocardium and the metabolism is closely related to myocardial carbohydrate utilization.

L28 ANSWER 15 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:659643. HCAPLUS  
 DOCUMENT NUMBER: 123:51295  
 TITLE: Peptides having affinity for sites of inflammation, radiolabeled peptides, and radioactive diagnostic imaging agents containing them  
 INVENTOR(S): Itaya, Yoshitoshi; Hanaoka, Koichi; Shirakami, Yoshiyumi  
 PATENT ASSIGNEE(S): Nihon Medi-Physics Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 21 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 649857	A1	19950426	EP 1994-116583	19941020
EP 649857	B1	19990120		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
AU 9475979	A1	19950511	AU 1994-75979	19941020
AU 675166	B2	19970123		
AT 175976	E	19990215	AT 1994-116583	19941020
ES 2126695	T3	19990401	ES 1994-116583	19941020
CA 2134051	AA	19950423	CA 1994-2134051	19941021
JP 07206895	A2	19950808	JP 1994-281526	19941021
US 5821330	A	19981013	US 1994-327459	19941021

PRIORITY APPLN. INFO.: JP 1993-287752 A 19931022

AB Peptides having affinity with regions of inflammation are disclosed, which contains at least one of the following amino acid sequences: LLGGPS, LLGGPSV, KEYKAKVSNKALPAPIEKTISK, KEYKCKVSNKALPAPIEKTISK, KTKPREQQYNSTYR, and KTKPREQQYNSTYRVV. Peptides, peptide derivs., radiolabeled peptides, and radioactive diagnostics containing such peptides are provided; they are useful for imaging regions of inflammation, accumulate at the site of inflammation immediately after administration, and have excellent clearance into urine. Preparation of the peptides, as well as of technetium-99m-labeled and indium-111-labeled peptides, is described, as are imaging of inflammation and imaging of infectious disease in rats.

L28 ANSWER 16 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:404969 HCAPLUS  
 DOCUMENT NUMBER: 119:4969  
 TITLE: Inhibition of protein synthesis by antiviral protein from Yucca recurvifolia leaves

AUTHOR(S): Ito, Yoshihito; Seki, Ikuya; Tanifuji,  
Shigeyuki; Hiramatsu, Akira  
CORPORATE SOURCE: Fac. Agric., Ibaraki Univ., Ami, 300-03, Japan  
SOURCE: Bioscience, Biotechnology, and Biochemistry (1993),  
57(3), 518-19  
CODEN: BBBIEJ; ISSN: 0916-8451

DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Yucca leaf protein (YLP) from *Y. recurvifolia* inactivated ribosomes by releasing adenine which suggests that YLP has a rRNA N-glycosidase activity like those of other ribosome-inactivating proteins. YLP inhibited protein formation in a rabbit reticulocyte lysate.

L28 ANSWER 17 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:56118 HCAPLUS  
DOCUMENT NUMBER: 118:56118  
TITLE: Extracellular localization of antiviral protein from  
leaves of *Yucca recurvifolia* Salisb

AUTHOR(S): Ito, Yoshihito; Seki, Ikuya; Hiramatsu,  
Akira  
CORPORATE SOURCE: Fac. Agric., Ibaraki Univ., Ibaraki, 300-03, Japan  
SOURCE: Ibaraki Daigaku Nogakubu Gakujutsu Hokoku (1992),  
Volume Date 1991, 39, 7-12  
CODEN: IDNGAO; ISSN: 0445-1694

DOCUMENT TYPE: Journal  
LANGUAGE: Japanese

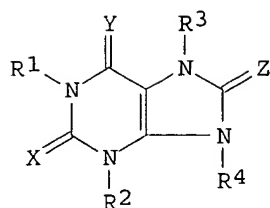
AB Immunolog. activities of yucca leaf proteins (YLP and YLP-II) were examined. The proteins were purified by using chromatog. on CM-Toyopearl 650M from 10 mM Tris-HCl buffer homogenate of leaves. In Ouchterlony double diffusion anal., YLP-antiserum of rabbit formed a single precipitin line with YLP and double lines with YLP-II, but no lines with fruiting body protein from *Lentinus edodes* and ricin A-chain from *Ricinus communis*. Palisade parenchymatous cells were stained with YLP-antiserum of rabbit by using the avidin-biotin immunoperoxidase kits.

L28 ANSWER 18 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

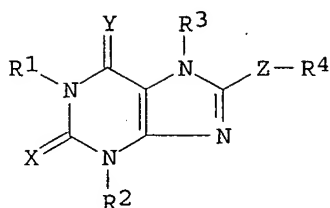
ACCESSION NUMBER: 1990:572035 HCAPLUS  
DOCUMENT NUMBER: 113:172035  
TITLE: Obesity-treating pharmaceuticals containing uric acids  
INVENTOR(S): Kawaguchi, Takayoshi; Nishihara, Toru;  
Nakai, Shiro; Yoshida, Koichi; Yoshimoto, Kyoko  
PATENT ASSIGNEE(S): Rohto Pharmaceutical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

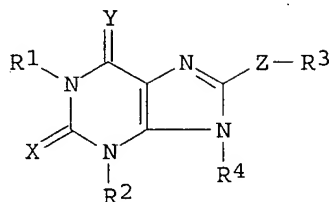
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01299229	A2	19891204	JP 1988-129381	19880525
PRIORITY APPLN. INFO.:			JP 1988-129381	19880525
OTHER SOURCE(S):	MARPAT	113:172035		
GI				



I



II



III

AB Obesity-treating pharmaceuticals, which are safe and accelerate hormone production for a longer time than uric acid (no data), contain uric acids I, II, or III [R1-R4 = H, lower (hydroxy)alkyl, acyl; X, Y, Z = O, S] or their medicinally acceptable salts as active ingredients. Administration of 3-methyluric acid at 10 mg/day s.c. every other day for 6 wk decreased body weight by 26% in obese mice, vs. 5%, for uric acid. Refluxing 3 g 8-bromo-3,7-dimethylxanthine and 1.38 g 70% NaHS in EtOH for 30 min gave 1.45 g 8-mercapto-3,7-dimethyluric acid.

L28 ANSWER 19 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1988:106687 HCAPLUS

DOCUMENT NUMBER: 108:106687

TITLE: Sex differences in the effect of uric acid on the survival of analbuminemic rats exposed to cold: effects of gonadal hormones and uric acid

AUTHOR(S): Kawaguchi, Takayoshi; Shimode, Masaru; Matsushita, Hiroshi; Nagase, Sumi

CORPORATE SOURCE: Dep. Physiol., Wakayama Med. Coll., Wakayama, 640, Japan

SOURCE: Japanese Journal of Physiology (1987), 37(5), 941-5  
CODEN: JJPHAM; ISSN: 0021-521X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB When female analbuminemic rats were injected with 0.8 mg uric acid every 3 h, their survival time at 5° increased from 14 to 28 h, but uric acid had no effect on analbuminemic male rats. When female rats were oophorectomized 1 wk before cold exposure, the injection of uric acid had no effect on their survival. Furthermore, uric acid did not increase the survival of the female rats that were administered a pellet containing 5 mg testosterone 1 wk before the cold exposure. When the male rats were castrated 1 wk before cold exposure, their survival time decreased from 20 to 14 h, and administration of 5 mg estradiol pellet at the time of castration and 0.8 mg uric acid every 3 h during cold exposure increased their survival time to 23 h. Apparently, estrogens activate energy production as does uric acid in these rats.

L28 ANSWER 20 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1988:34189 HCAPLUS

DOCUMENT NUMBER: 108:34189

TITLE: Chelating biomolecular compounds for use as diagnostic

INVENTOR(S): .. and therapeutic radiopharmaceuticals  
Kurami, Miki; Shirakami, Yoshifumi;  
Takahashi, Keietsu; Ueda, Nobuo  
PATENT ASSIGNEE(S): Nihon Medi-Physics Co., Ltd., Japan  
SOURCE: Eur. Pat. Appl., 15 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 233619	A1	19870826	EP 1987-102123	19870214
EP 233619	B1	19921230		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
JP 62275128	A2	19871130	JP 1986-315089	19861231
JP 2548711	B2	19961030		
DK 8700756	A	19870815	DK 1987-756	19870213
DK 172629	B1	19990322		
AU 8768782	A1	19870820	AU 1987-68782	19870213
AU 593611	B2	19900215		
CA 1266344	A1	19900227	CA 1987-529700	19870213
AT 83933	E	19930115	AT 1987-102123	19870214
ES 2053456	T3	19940801	ES 1987-102123	19870214
US 4855353	A	19890808	US 1987-15633	19870217
JP 08253581	A2	19961001	JP 1996-41032	19960228
JP 08259692	A2	19961008	JP 1996-41057	19960228
PRIORITY APPLN. INFO.:			JP 1986-31622	A 19860214
			JP 1986-315089	A 19861231
			EP 1987-102123	A 19870214

AB Biomols. may be radiolabeled using a polyamine-chelate-forming-carboxylate composition. The carrier does not affect the activity of the biomol. The composition may be used for diagnostic or therapeutic purposes.  
HSA-polyLys-DTPA (I) was prepared by treating polylysine-HCl (polyLys-HCl) with diethylenetriaminepentaacetic acid (DTPA) cyclic anhydride to give polyLys-DTPA, which coupled with human serum albumin (HSA) to give I. I contained HSA-polyLys-DTPA in a 1:1:5.4 ratio. I was treated with <sup>111</sup>InCl (2 mCi/mL) to give HSA-polyLys-DTPA-<sup>111</sup>In (II). Distribution of II in a rat showed that no denaturation of HSA was produced by preparation of II; the distribution of II was the same as HSA-DTPA-<sup>111</sup>In.

L28 ANSWER 21 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1987:561653 HCAPLUS

DOCUMENT NUMBER: 107:161653

TITLE: Development of Tc-99m-DTPA-HSA as a new blood pool scanning agent

AUTHOR(S): Shirakami, Yoshifumi; Matsumoto, Yasuhiro;  
Yamauchi, Yuko; Kurami, Miki; Ueda, Nobuo; Hazue, Masaaki

CORPORATE SOURCE: Tech. Dep., Nihon Medi-Phys. Co. Ltd., Chiba, Japan

SOURCE: Kaku Igaku (1987), 24(4), 475-8

CODEN: KAIGBZ; ISSN: 0022-7854

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB A new human serum albumin (HSA) preparation, <sup>99m</sup>Tc-DTPA-HSA, was developed as a blood pool scanning agent. It shows higher labeling yield (>95%) and higher blood retention (74.7% ID at 1 h post-injection) than <sup>99m</sup>Tc-HSA prepared by directly labeling of HSA with <sup>99m</sup>Tc. The introduction of DTPA, a strong bifunctional chelating agent, to HSA provides sites for the

stable binding of  $^{99m}\text{Tc}$ . The preparation composed of 20 mCi of  $^{99m}\text{Tc}$  at calibration time and 10 mg of DTPA-HSA in a vial. After labeling, it had been stable for 24 h at room temperature. In rats, most of  $^{99m}\text{Tc}$ -DTPA-HSA injected was metabolized and excreted in urine and feces. The cumulative radioactivity in urine and feces were 56.0 and 13.7% of injected dose, resp., at 48 h after injection. Metabolites observed in urine were  $^{99m}\text{Tc}$ -urea,  $^{99m}\text{Tc}$ -DTPA, and reduced  $^{99m}\text{Tc}$ .  $^{99m}\text{Tc}$ -DTPA-HSA is, therefore, a desirable feature for the blood pool scanning agent.

L28 ANSWER 22 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1986:440519 HCAPLUS

DOCUMENT NUMBER: 105:40519

TITLE: Frequent administration of uric acid extends survival of fasting analbuminemic rats under cold environment

AUTHOR(S): Kawaguchi, Takayoshi; Shimode, Masaru; Matsushita, Hiroshi; Nagase, Sumi

CORPORATE SOURCE: Dep. Physiol., Wakayama Med. Coll., Wakayama, 640, Japan

SOURCE: Japanese Journal of Physiology (1986), 36(2), 295-303  
CODEN: JJPHAM; ISSN: 0021-521X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Analbuminemic rats died within 18 h after a rapid decrease of body temperature whereas control Charles River, Wistar, and Sprague Dawley rats survived for 40 h, when the animals were kept at 5° without food. Five low-mol.-weight fractions obtained from Sprague Dawley rat sera were administered to analbuminemic rats kept under these conditions. The duration of survival was extended by the administration of 2 of the fractions. Several characteristics of 1 of these fractions coincided with those of uric acid, and body temperature of analbuminemic and Sprague Dawley rats increased within 5 min after uric acid administration.

L28 ANSWER 23 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1980:411846 HCAPLUS

DOCUMENT NUMBER: 93:11846

TITLE: Sliding part with high abrasion resistance

INVENTOR(S): Kawaguchi, Takayoshi; Kodate, Sadaji

PATENT ASSIGNEE(S): Mitsuya Seiko K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55002747	A2	19800110	JP 1978-74969	19780621
JP 58038507	B4	19830823		

PRIORITY APPLN. INFO.: JP 1978-74969 A 19780621

AB Wear-resistant sliding parts are obtained from ferrous metals by sulfurization and nitridation, then treatment with acid to form fine pores, and coating with Cu, Cu alloy, or Sn. Thus, a cold-rolled steel sheet SPCC [39462-15-2] was immersed in a salt bath containing Li+ 6, K+ 23.4, Na+ 14, CO32- 16.1, CNO- 40.0, and S2- 0.5% at 570° for 1 h, degreased, etched with 15% HCl for 15 min to form fine pores (depth 5-10  $\mu$ ), and electroplated with 10  $\mu$ -thick Cu. The steel sheet had high wear resistance.

L28 ANSWER 24 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1979:149736 HCAPLUS  
 DOCUMENT NUMBER: 90:149736  
 TITLE: Further studies on the electrophoretic pattern of albumin in diabetic sera  
 AUTHOR(S): Kawaguchi, Takayoshi; Tsuchida, Tadashi; Matsushita, Hiroshi  
 CORPORATE SOURCE: Dep. Physiol., Wakayama Med. Coll., Wakayama, Japan  
 SOURCE: Clinica Chimica Acta (1979), 92(2), 125-34  
 CODEN: CCATAR; ISSN: 0009-8981  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB In polyacrylamide gel, normal human serum exhibited the fast migrating band 2 and the slower migrating albumin bands 4 and 5 after overnight fasting and also after glucose administration. In diabetic serum, bands 4 and 5 did not appear before or after glucose administration in low mercaptoethanol gel, resembling the pattern in C57BL/KsJ-db/db mice. In high mercaptoethanol gel, about half of the diabetic serums exhibited a delay in appearance of bands 4 and 5, i.e., bands 4 and 5 were not observed 30-60 min after glucose administration, which seemed to resemble the pattern in C57BL/6J-ob/ob mice. Conditions of electrophoresis in urea-submerged cellulose acetate membrane (species of buffer systems, pH, ion concentration, mercaptoethanol, EDTA, Ca<sup>2+</sup> ion, urea concentration, etc.) were observed in relation to albumin sub-separation. At pH 8.6 with barbitol buffer, albumin separated into 2 bands, and at pH 10.6 with glycine buffer, albumin separated into 4 bands. Almost all diabetic serums (.apprx.80%) exhibited different electrophoretic patterns from that of normal serum.

L28 ANSWER 25 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1978:515591 HCAPLUS  
 DOCUMENT NUMBER: 89:115591  
 TITLE: Porous cast iron  
 INVENTOR(S): Kawaguchi, Takayoshi  
 PATENT ASSIGNEE(S): Oiles Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 53001123	A2	19780107	JP 1976-74524	19760625
JP 56038649	B4	19810908		
DE 2727058	A1	19771229	DE 1977-2727058	19770615
DE 2727058	C2	19860612		
GB 1538664	A	19790124	GB 1977-25980	19770621
US 4173500	A	19791106	US 1977-808564	19770621
SE 7707239	A	19771226	SE 1977-7239	19770622
SE 436896	B	19850128		
SE 436896	C	19850509		
FR 2355916	A1	19780120	FR 1977-19088	19770622
FR 2355916	B1	19800215		

PRIORITY APPLN. INFO.: JP 1976-74524 A 19760625

AB The porous cast iron is obtained by exposing to an atmospheric inert to Fe and oxidizing the flake graphite. The method is used to obtain lubricant-impregnated sliding parts or bearings. Thus, a gray cast iron [67327-80-4] casting containing C 3.56, Si 2.2, Mn 0.56, P 0.1, and S 0.1% was



exposed to a CO<sub>2</sub>-CO mixture at 970° to remove graphite, and impregnated with a lubricant.

L28 ANSWER 26 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1978:147708 HCAPLUS

DOCUMENT NUMBER: 88:147708

TITLE: The reason for sub-separation of serum albumin in urea-containing gel electrophoresis

AUTHOR(S): **Kawaguchi, Takayoshi**; Tsuchida, Tadashi; Kitano, Kaoru; Yasuda, Tatsuo; Matsushita, Hiroshi  
CORPORATE SOURCE: Dep. Physiol., Wakayama Med. Coll., Wakayama, Japan  
SOURCE: Wakayama Medical Reports (1977), 20(2), 81-5

CODEN: WKMHRA; ISSN: 0511-084X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Human serum proteins were separated by 2-dimensional electrophoresis, using 4.3M urea-containing polyacrylamide gel in the 1st dimension, and gels containing

5-10% acrylamide in the 2nd dimension. Two albumin bands (fast-migrating and slow-migrating) were seen. The relative velocity of the slow-migrating albumin band was compared with the relative velocity of the dimer albumin in each gel; the former coincided with that of  $\alpha$ -globulin but not with the dimer albumin. Thus, the slow-migrating albumin is a monomer albumin with an isoelec. point of pH 6.1.

L28 ANSWER 27 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1978:102767 HCAPLUS

DOCUMENT NUMBER: 88:102767

TITLE: Abnormal electrophoretic pattern of albumin in diabetic serums

AUTHOR(S): **Kawaguchi, Takayoshi**; Tsuchida, Tadashi; Matsushita, Hiroshi

CORPORATE SOURCE: Dep. Physiol., Wakayama Med. Coll., Wakayama, Japan  
SOURCE: Clinica Chimica Acta (1978), 83(1-2), 7-12

CODEN: CCATAR; ISSN: 0009-8981

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Human serums collected from normal subjects and diabetic patients were electrophoresed in an urea-containing gel. The albumin fraction separated into several bands. In normal fasting serum the fast-migrating bands 1 and 2 were observed and the slower-migrating bands 4 and 5 did not appear. After glucose administration, band 1 disappeared and bands 4 and 5 appeared for the first time. In diabetic serum, bands 4 and 5 did not appear before or after glucose administration and this abnormality resembles the pattern in C57BL/KsJ-db/db mice but not C57BL/6J-ob/ob mice.

L28 ANSWER 28 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1978:3905 HCAPLUS

DOCUMENT NUMBER: 88:3905

TITLE: Electrophoretic patterns of serum albumins collected from different blood vessels

AUTHOR(S): **Kawaguchi, Takayoshi**  
CORPORATE SOURCE: Dep. Physiol., Wakayama Med. Coll., Wakayama, Japan  
SOURCE: Clinica Chimica Acta (1977), 80(3), 409-14

CODEN: CCATAR; ISSN: 0009-8981

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Rabbit serums collected from different blood vessels, e.g. vena renales, vena mesenterica, vena portae, vena hepatica, and aorta, were electrophoresed in a urea-containing polyacrylamide gel. The albumin fraction

was separated into 5-6 sub-bands. The profile of these sub-bands (electrophoretic pattern) of the sample from 1 blood vessel differed from that of another blood vessel. Especially, the electrophoretic pattern of serum collected from the renal vein 2 h after deprivation of food differed from that of other blood vessels. Free fatty acid concns. of each sample were also measured, and differences in these levels were observed in serums collected from different blood vessels. However, the fatty acid concns. in serum from the renal vein were not low enough to permit detection of any abnormality in electrophoretic pattern in the albumin. This suggests the possibility of decreased concentration of lysolecithin in the renal vein which binds to albumin and changes the electrophoretic mobility of albumin, as do the free fatty acids.

L28 ANSWER 29 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1975:153231 HCAPLUS  
DOCUMENT NUMBER: 82:153231  
TITLE: Electrophoretic patterns of serum albumins collected from hereditary obese and diabetic mice

AUTHOR(S): Kawaguchi, Takayoshi; Matsushita, Hiroshi  
CORPORATE SOURCE: Dep. Physiol., Wakayama Med. Coll., Wakayama, Japan  
SOURCE: Endocrinology (1975), 96(2), 409-15  
CODEN: ENDOAO; ISSN: 0013-7227

DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Sera collected at different postfeeding times from C57BL/6J, C57BL6J-ob/ob, C57BL/KsJ and C57BL/KsJ-db/db mice were electrophoresed in urea-containing gels. According to variation in susceptibility of albumin mols. to urea denaturation, several ligand-binding albumins migrated as different bands. Sera collected at different postfeeding times from C57BL/6J mice showed different electrophoretic patterns; serum collected after a 20-hr starvation period consisted mainly of fatty acid-bound albumin (band 1); serum collected after refeeding lacked fatty acid-bound albumin but contained slower migrating bands (bands 3-7), the nature of which was obscure and showed a resemblance to normal human sera. Sera collected during and after feeding from C57BL/6J-ob/ob mice showed an albumin pattern resembling that collected during and after feeding from C57BL/6J normal mice, but that collected during the fasting state from ob/ob mice contained bands 3-7, which were not observed in the fasting state in normal mice. On the contrary, sera collected from C57BL/KsJ-db/db mice showed quite different patterns; bands 3-4 did not appear in the sera collected during and after feeding, although the albumin pattern in the fasting state showed a normal pattern. Administration of insulin or antidiabetic agents to fasted mice induced bands 3-7, suggesting a relation of bands 3-7 to glucose metabolism or insulin action. To study the nature of the albumin-ligand complex, in vitro expts. were conducted.

L28 ANSWER 30 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1974:118764 HCAPLUS  
DOCUMENT NUMBER: 80:118764  
TITLE: Increased sensitivity to urea denaturation of Cohn's fraction V

AUTHOR(S): Kawaguchi, Takayoshi; Matsushita, Hiroshi  
CORPORATE SOURCE: Dep. Physiol., Wakayama Med. Coll., Wakayama, Japan  
SOURCE: Clinica Chimica Acta (1974), 50(3), 345-8  
CODEN: CCATAR; ISSN: 0009-8981

DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Bovine serum and bovine serum albumins prepared by EtOH precipitation, (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> salting out, and gel filtration were electrophoresed in acrylamide gels

containing various concns. of urea. In gels containing <2.0M urea, the electrophoretic patterns of all samples did not show any differences from those in urea-free gel. In 2.2M urea gel, a slower migrating band appeared in the Fraction V sample, which showed denaturation of some part of the protein preparation. In 2.4M urea gel, crystalline albumin also began to denature. This increased sensitivity to urea denaturation of protein was considered to be due to the essential character of the protein itself produced by the purification procedure with acid-EtOH treatment. A requirement for careful selection of the protein sample in expts. on protein-ligand binding is discussed.

L28 ANSWER 31 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1973:466632 HCAPLUS  
DOCUMENT NUMBER: 79:66632  
TITLE: Beckmann and Schmidt rearrangements of 6-oxomorphine alkaloids  
AUTHOR(S): Bogner, R.; Makleit, S.; Radics, L.; Seki, I.  
CORPORATE SOURCE: Inst. Org. Chem., L. Kossuth Univ., Debrecen, Hung.  
SOURCE: Organic Preparations and Procedures International (1973), 5(2), 49-54  
CODEN: OPPIAK; ISSN: 0030-4948

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB The Beckmann rearrangement of dihydrocodeinone oxime gave the C-homo-6-azamorphinan (I) while the Schmidt reaction of 6-oxomorphinans with NaN<sub>3</sub> gave the isomeric II (R = H, OH; R<sub>1</sub> = H, Me) and with dihydrothebainone the Schmidt reaction gave III.

L28 ANSWER 32 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1973:402252 HCAPLUS  
DOCUMENT NUMBER: 79:2252  
TITLE: Polyacrylamide gel electrophoresis for the separation of serum albumin into three bands  
AUTHOR(S): Kawaguchi, Takayoshi  
CORPORATE SOURCE: Dep. Physiol., Wakayama Med. Coll., Wakayama, Japan  
SOURCE: Clinica Chimica Acta (1973), 45(1), 85-92  
CODEN: CCATAR; ISSN: 0009-8981

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Bovine serum was electrophoresed in polyacrylamide gels containing 3-4mM Na EDTA, 14 mM mercaptoethanol, and different concns. of urea. The electrophoretic patterns of sera differed in these gels. A difference confirmed by 2-dimensional electrophoresis was the separation of the albumin fraction into 3 bands when 4-5M urea was present. With the system described above, defatted albumin was separated from fatty acid-bound albumin by its delayed migration rate. Comparison with purified albumin revealed the existence of a band other than defatted or fatty acid-bound albumin in serum. When bovine serum was incubated with mouse liver cells before electrophoresis, the slower migrating albumin band disappeared, and the faster migrating band increased quant.

L28 ANSWER 33 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1973:157407 HCAPLUS  
DOCUMENT NUMBER: 78:157407  
TITLE: Polyacrylamide gell electrophoresis of human serums collected at different times after meals  
AUTHOR(S): Kawaguchi, Takayoshi  
CORPORATE SOURCE: Dep. Physiol., Wakayama Med. Coll., Wakayama, Japan  
SOURCE: Clinica Chimica Acta (1973), 45(1), 47-54

CODEN: CCATAR; ISSN: 0009-8981

DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Normal human sera collected at different times after meals were electrophoresed in a urea and EDTA-containing gel. The albumin fraction was separated into several sub-bands. The effect of various conditions (pH, EDTA, acrylamide, urea, and mercaptoethanol concentration) was examined. Eight sub-bands of albumin were observed when electrophoresis was conducted at pH 8.0. The albumin pattern was separated into 3 phases, classified according to the collection time of sera: (1) 1-2 hr after a meal, (2) 4-11 hr after a meal, and (3) after 30 hr starvation. The administration of sugar but not lipid or protein made a pronounced change in the albumin pattern from the hungry phase to the satisfaction phase. The significance of these albumin patterns to an understanding of the physiol. conditions of metabolism is discussed.

L28 ANSWER 34 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1972:431209 HCAPLUS

DOCUMENT NUMBER: 77:31209

TITLE: Effects of conditioned medium prepared with denatured cell on the lymphocyte

AUTHOR(S): Kawaguchi, Takayoshi

CORPORATE SOURCE: Wakayama Med. Coll., Wakayama, Japan

SOURCE: Wakayama Medical Reports (1970), 14(2), 49-52

CODEN: WKMHRAH; ISSN: 0511-084X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An equivalent percentage of lymphocytes survived in a conditioned medium prepared at lower temps. as in one prepared at 37°. Conditioned medium prepared with cells denatured by formalin or by 60Co had the same effect on mouse thymic lymphocytes as a medium prepared with living cells. Addition of bovine serum to the conditioned medium decreased the effectiveness of conditioning. The results indicate that the RPMI 1640 medium is more suitable for growth than RPMI 1640 supplemented with 20% bovine serum, and that the conditioned medium prepared at lower temps. than 37° has an identical effect as that prepared at 37°. The conditioned medium does not contain any pos. cell growth factor. Conditioning of the medium by various temps. and a short cultivation time produce the same effect on the viability of the cells. Formalin denaturation and 60Co irradiation did not change the effect of the medium. Irradiation by 2000 R of 60Co actually seemed to inactivate the cells, because a pH shift downward in the conditioning of the medium was not seen, whereas it was observed if cells were irradiated with <1000 R. Addition of bovine serum to the conditioned medium decreased the viability of the cells. It appears that conditioning of the medium may remove cytotoxic substances rather than make nutritional contributions to cell growth. The use of fetal calf serum, or bovine or horse serum conditioned at <37° for a short time appears to be most useful for cell culture purposes.

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